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Hotel Guibert, La Paz



*A search for
the apex of America*

Annie Smith Peck

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**A SEARCH FOR
THE APEX OF AMERICA**

111

CHAPTER I

EXPEDITION OF 1903. PREPARATIONS

"WHICH is my intention of climbing Sorata, I am going to tell you!" This, the frequent playful remark of a little Peruvian lad on my first voyage from New York to Callao, may serve as introduction.

An intention to scale what some persons regarded as the loftiest mountain of the Western Hemisphere was formed in the early days of 1898, scarcely a year after the conquest by the Fitzgerald Expedition of Aconcagua, generally supposed to hold that honour. A few months later my heart sank within me, as I read in a Boston paper that Sir Martin Conway had left England to do some climbing in South America, for I felt quite sure that he was going to try *my* mountain. "Now," said a friend, rather inelegantly, who shared the knowledge of my purpose, "your cake is dough! Of course Conway will climb it, and if he doesn't, you can't." "Well," I responded, "it does look that way, but there is a single chance. Conway has started two months late. He may make one attempt under unfavourable conditions and be prevented by the opening of the rainy season from trying again." It was '99 before I learned that this was practically what happened.

For the next four years my thoughts and efforts beyond earning a mere subsistence were turned in this direction. When at last, with the patronage of a leading magazine and the aid of a few individuals, on the evening of May 20th, 1903, the momentous decision was made to undertake the matter, I was thoroughly informed upon the subject and ready for immediate action. Within the hour a cable was speeding beneath the ocean to summon to my aid Swiss guides, and a telegram was flashing westward to apprise of the actual realisation of the project a scientific gentleman

whom I had tentatively invited to accompany me and share in the scientific work of the expedition.

With one of the Swiss guides I had been negotiating semi-occasionally for years, but final arrangements and details were in the hands of Dr. Hermann Seiler of Brieg. In the absence of his brother, Dr. Alexander, of Mont Cervin fame, to whom I had written, Dr. Hermann had kindly offered to select the other guide and to advance money for their journey to New York and other needful expenses. Such confidence and interest in my undertaking displayed by an entire stranger was highly appreciated.

In connexion with the scientific work which I desired to cover as far as possible in so brief a trip at a minimum of expense and labour, I at first, in 1898, hoped for the companionship of the then Lieutenant, now Captain Milton F. Davis, of the United States Army, who in 1897 had been with me on Popocatepetl. He had there shown wonderful ability for rapid climbing, ascending to the crater from Las Cruces in record time, two hours and five minutes. A thorough scientist and gentleman, a most agreeable and considerate companion, I rejoiced at his eager acceptance of my invitation. In Washington I was assured that the necessary leave for the officer could undoubtedly be obtained if a war with Spain did not break out; alas, that it did! with many other evils, putting an end to all chance of obtaining assistance from the regular army.

Uncertainty as to making the expedition at all later prevented my seeking near home a congenial and competent assistant. I had, therefore, broached the matter by correspondence to a gentleman of an hour's acquaintance who, a few years earlier, had been recommended to me as an expert photographer and an all around scientist, his specialty geology, but with some knowledge of botany, entomology, etc.

DIFFICULTIES OF THE ENTERPRISE

In addition to the ordinary dangers of the Alps (whereby one's neck may be broken in a variety of ways) the region

of the Andes has troubles peculiarly its own or shared only by the Himalayas. These difficulties, due to the extreme and unaccustomed altitude, though grave, are by no means insurmountable to one of strictly sound physique. A few persons are unpleasantly affected at the summit of Mt. Washington, many at the top of Pike's Peak, where death has sometimes ensued. At 20,000 feet the difficulty is enormously increased. Near the summit of Sorata, Conway found the mercury of his barometer at 12.42 inches, indicating about two-fifths the amount of air at sea level. When the mercury stands in the twenties, a slight difference in pressure is unnoticed by the person of sound heart and lungs; but the diminution of three-fifths the ordinary amount of oxygen to two-fifths counts emphatically with every one. It may be endured only by a few and by these generally with suffering.

In South America, where the railways for ordinary traffic carry passengers to elevations equalling the loftiest summits of the Alps, mountain sickness, there called *soroche*, is very common. Attacking most persons at an altitude of from 10,000 to 20,000 feet it bears much resemblance to seasickness, usually having the form of a headache, often with nausea and vomiting, accompanied by more or less fever. With others it causes hemorrhage, apoplexy, or heart failure, any of which may prove fatal. The few who above 16,000 feet escape anything that may be called illness suffer from accelerated heart action when moving, a great diminution of strength, and the impossibility of severe or prolonged effort without exhaustion. What persons will best endure the strain of great altitudes cannot be ascertained absolutely in advance; yet it is obvious that with a perfect heart, strong lungs, good digestion, and sound tissues, the risk is decreased to the minimum. I should not, therefore, have invited to accompany me a gentleman subject to sick headaches, had I been aware of the fact.

Another difficulty to be encountered at great altitudes is the excessive cold. While the temperature is not so low as

in the Polar regions, the fact that from the diminished supply of oxygen the fires within burn low renders greater the liability to frozen feet and general suffering. Some persons have found it impossible at an altitude of 16,000 feet to keep warm at night with any amount of clothing; the strong winds which often prevail on plateau or mountain, penetrating any clothing not of skin, greatly augment the discomfort.

A further obstacle to high climbing in South America is the impossibility of procuring suitable assistance on the ground. Many inquire "Why take Swiss guides? Why not get help from those who live there?" without pausing to consider that a person who has never set foot upon ice is no more competent to lead the way on glaciers because he happens to live at the foot of the mountain. Few expert climbers undertake serious mountaineering in any part of the world without the aid of Swiss guides, who alone make mountain climbing a profession and who, the best of them, understand so well snow- and rock-work as to be able skilfully to choose the practicable and safest path even on unfamiliar ground. By no means regarding myself as an independent climber, I should, at the outset, never have dreamed of venturing upon great glaciers without expert professional assistance. Desperation only at length drove me to do so.

EQUIPMENT

The equipment of an expedition is hardly less important than the personnel of a party. Being a particularly cold individual, and aware that some of Conway's and Fitzgerald's guides had had their feet frozen, I feared this danger more than any other and accordingly made careful preparation, profiting by the knowledge that several thicknesses of light weight woollen are better than one or two of heavier weave. Three sets of all wool underwear, tights, sweater, cardigan jacket, flannel waists, knickerbockers, very heavy boots four sizes too large, for the accommodation of four pairs of heavy woollen stockings, might be deemed suffi-

cient to keep me warm; but I had my doubts and was therefore highly gratified when, at the suggestion of Admiral Peary and through the kindness of Professor H. C. Bumpus, Director of the American Museum of Natural History, I was able to borrow from that institution an eskimo suit brought by Mr. Peary from the Polar regions.

For the cold nights we had sleeping bags consisting of two pairs of blankets in a canvas cover, with a flap to be drawn over the face. It occurred to me to carry Japanese stoves; small, cloth-covered tin boxes which a roll of prepared fuel will heat for two hours. With one of these in each pocket and good mittens, there would be no danger of cold hands. I had also a pair of heavy woollen mitts with long wrists, especially suited for scientific observations on the summit when the fingers must be free. For our further protection we had two tents, one of silk that it might be as light as possible, since at great altitudes neither man nor beast can carry half so much as below.

The food supply was important, as it must be something easily prepared and digested. Rolls of German *erbswurst*, an army ration containing in condensed form all the ingredients essential to health and strength, and other dry soups such as lentils, beans, etc., served well all but the Professor who preferred his food in solid form. Among our stores were tea, coffee, and cocoa, the second not to be used above 15,000 feet, as tea is the safer beverage in high climbing. Brandy must not be omitted, however temperate the party, to be used, not as an aid in climbing, but in case of exhaustion or collapse. Chocolate is absolutely essential. Without my Gala Peter I should hardly have reached the summit of Huascarán.

Our equipment included a primus oil stove burning with a gas flame, and ordinary utensils, an aluminum lantern with candles, a field glass, compasses, rifle and revolvers, whistles in case of separation, smoked glasses, and four cameras.

As it was my purpose to make the expedition of scientific interest by observations in the line of geology, geography,

and meteorology, as by others of a physico-medical character showing the endurance and varying capabilities of the human frame, we carried scientific instruments: two mercurial barometers, one loaned by the Weather Bureau, to be used at a base station in comparison with the one above, the other made especially for me by Henry J. Green of Brooklyn, probably the only one in the country reading down to ten inches, as except for climbing in the Andes or Himalayas, or high ballooning, one would have no use for such an instrument. With these indicating the pressure of the atmosphere, I hoped to ascertain the height of the mountain. But as barometers are awkward things to carry and easily broken, we had also two hypsometers by which to find the temperature of boiling water at various altitudes and so the height above sea level. An aneroid barometer was loaned by Professor Winslow Upton of Brown University, another was borrowed later of Professor Solon I. Bailey at Arequipa. To measure the humidity of the air we had three psychrometers. Clinical thermometers were carried to take our temperatures, a sphygmograph by which to observe the strength and character of the pulse, a sphygmomanometer to ascertain the blood pressure; also a transit instrument for measuring the height of Sorata. The last three instruments were furnished by the scientist of the party, as were also three of the cameras.

Lastly, we prepared to attempt the use of oxygen on the mountain, though this is a difficult matter. Cylinders with oxygen under pressure are very heavy, and Mr. Whympers at a considerable elevation burst. Accordingly, we planned to transport to our highest camp materials for its manufacture, with rubber bags to contain the gas. The bags with a capacity of six or eight gallons were arranged to be carried on the back and were provided with tubing and mouthpiece. They were made by the Davidson Rubber Company of Charlestown, Mass., who assisted in their design.

With such equipment and aid, I hoped to accomplish something both of general interest and of real scientific value.

CHAPTER II

THE VOYAGE

VERY cheerfully, though half dead with the fatigue of hasty preparation, on the 16th of June, 1903, I embarked at New York on the good ship *Segurança* in quest of a goal which for five years I had been hoping to attain. With the companionship of a stalwart scientific man, who I believed would prove in every way a valuable assistant, and of two Swiss guides, one of whom was familiar with the country and the mountain we proposed to visit, I felt highly sanguine as to the result; especially as hitherto I had always been favoured of fortune and my every undertaking of importance had been crowned with success. But we have heard that of too much success the gods are jealous. In blissful ignorance that on this occasion I was to meet their frowns, I sailed away towards what I hoped would prove the utmost height of my ambition.

Those days were different from the present. In many ways our ship seemed in pleasing contrast to the great Atlantic liners. The spacious decks were but sparsely sprinkled with passengers: a few South Americans, going down the West Coast and a few North Americans, mostly *en route* to California by way of the Isthmus for the sake of the long sea voyage. Sailing southward under sunny skies over unruffled seas we wondered why more tourists did not choose a southern voyage instead of always the familiar route *across* the ocean. With a genial American captain, good homelike fare, countrymen enough to form, after a single day out, a social and rather merry company, we have a homey feeling and seem almost like a large family. On the fourth day, sailing through the Windward Channel, towards sunset we look with interest at the steep, wooded,

and desolate bluffs of Cape Maysie and the eastern shores of Cuba, mountains from 3,000 to 8,000 feet high rising at various and uncertain distances.

We had been forewarned that the Carribe'an Sea (why *will* nearly all the people persist in calling it the Car'ibbean?) might prove less kind than the Atlantic, and the prognostication was correct. The weather, already sufficiently warm, now became muggy and sticky, the sea disagreeably choppy, and the skies grey; so, though happier than most of the passengers in that I had no vows to pay to Neptune, I still felt rather solemn. The seventh day out was less doleful than the sixth but we were glad, on the morning of Tuesday, the 23rd of June, to find ourselves in the apparently fine harbour of Colon; apparently, indeed, only, for the large opening at the north, unprotected by any island, admits the whole force of the occasional "Norther," the severest storm of this region, so that there is ample warrant for the breakwater which our government is building west of the old docks, to protect the mouth of the canal and form a safe anchorage.

Colon, which was formerly said to appear from the sea a bright emerald green, and never so beautiful as when seen from the *stern* of a vessel, a writer once called "the filthiest, unwholesomest, most disorderly and repulsive hole of a place in all Christendom." Though I never use such language myself, I was not inclined to dispute the statement; but one now seeing the place for the first time could hardly imagine that it ever deserved the description.

It was usually necessary to wait from two to six days for the weekly steamer on the Pacific sailing south. At this time the irregularity had increased on account of quarantines, a result of the bubonica prevailing, as we were already aware, in a number of South American ports. I had been advised that there was little to choose as to where we should wait until Thursday, the regular (?) advertised sailing day of the steamers, (in all my trips I have never sailed on Thursday, nor did I ever hear of a boat leaving on that



Setting out from New York; Miss Peck, Scientist, two Swiss Guides

day), for in Colon were mosquitoes, in Panama was yellow fever; probably it was most desirable to go on board the Pacific steamship at the pier at La Boca, four miles from Panama City; whatever we did I should doubtless wish we had done something else. After trying all three possibilities, I should hesitate under old conditions to give advice; but now there is no question. One may safely and happily abide at Hotel Tivoli on the edge of the city of Panama as long as he desires. But these were other days!¹

Hearing that there was yellow fever in Panama, we decided to remain on board ship, with genial old Captain Leighton, instead of taking the morning train across the Isthmus, as did most of the other passengers.

It was the rainy season in Colon. It generally is since the dry season lasts but four months from December to April. Strange to say the wet season was considered the more healthful. During this period, they said, people died of yellow fever in four or five days, in the dry term, of pernicious fever in from twenty-four to thirty-six hours.

The day passed pleasantly enough, with but a single shower of short duration. The coolness of the temperature was an agreeable surprise, but alas! as evening drew on the cool breeze died away and clouds of mosquitoes sprang from nowhere to torment us in the sultry heat. Even before retiring, all agreed to flee from these ills by the earliest morning train, whatever our fate on the other shore, trusting that in one day no great harm would befall.

After boarding the train Wednesday morning, we learned that our ship would not sail until Saturday. Deep gloom settled over us, but we must proceed. The three hours' ride across the Isthmus, less hot than we feared, was full of interest. It is so yet, but in striking contrast to what we saw

¹ In connexion with Panamá it may be noted that in Spanish the last syllable is written with an accent, indicating the correct pronunciation. Unfortunately many Americans resident on the Isthmus, heedless of what is correct, place the accent on the first syllable: an improper and less euphonious pronunciation, now prevalent and spreading, which should be carefully avoided.

in 1903. The country would not be recognised. Back of Colon were several swamps which sufficiently accounted for the mosquitoes. We had glimpses of the French Canal, first appearing like a broad inlet, later a stream of moderate width. Soon we had a vision of luxuriant tropical vegetation, a splendid thicket of great trees, tangled vines, and underbrush, beautiful to look at, but not, I should judge, for a promenade.

From the Panama station at the edge of the town it is a mile to the Central or Cathedral plaza; carriages are numerous and ten cents of American money is the reasonable fare both then and now. We rattle over the wretchedly uneven pavement to the office of the steamship line where tickets must be exchanged. Here, luckily, we find the captain of the *Palena* by which we are to sail and learn that we may go on board the steamer at once if we desire, thus avoiding danger from yellow fever. Moreover, the cost on board ship, \$2.50 a day, was less than at the Hotel Central where the price was \$3.50 gold, while the cheaper fare as afterwards proved was much the better.

A railroad ride of fifteen or twenty minutes brings one to the pier at La Boca. The *Palena* we find larger than the *Segurança*. Its officers claimed that it was thoroughly up to date and equal to any ship afloat in construction, equipment, and cuisine; but this seemed a slight exaggeration. On the upper deck is a spacious, handsomely decorated dining room, a fine salon with card tables, piano, and organ, and plenty of space for deck golf and promenade. The good sized staterooms on the deck below open on an outside passage, door and window each being furnished with blinds.

In spite of an extensive menu the cuisine is not wholly to our minds, as we are unaccustomed to South American cookery; yet we easily satisfy our appetites and have less temptation to over-eat. Coffee is served in dining or stateroom until half past eight A. M., breakfast at ten, luncheon at one, dinner at six, and tea at nine. Most persons omit

coffee, luncheon, or tea; a few, perhaps, all of these. Breakfast and dinner resemble each other, both beginning with soup, generally followed by fish, and having many other dishes in common; but beefsteak and eggs are served only at breakfast and roasts and sweets at dinner. At luncheon, there is a variety of cold dishes such as meats and salad, but nothing hot save potatoes, tea, and coffee.

Much fun we had over the bill of fare, a poor young man at our table who understood Spanish being much bored by our "What is this? What is that?" of the same things day after day. Signs are largely employed, as most of the waiters understand very little English, but *agua con hielo* (ice water) is speedily learned as well as *bifsteak*, and *asado bucy*, roast beef. Plenty of fruit is provided, oranges, bananas, and watermelons, white, red, and yellow. The meat, whether beef or lamb, was generally tough, being eaten the day after it was killed, as there was no large refrigerator. There is now a marked improvement, as the ships are provided with facilities for cold storage.

Animals for eating were taken on board at La Boca, one being killed daily for the consumption of passengers and crew, each numbering about eighty. They did not walk on board, but were drawn up by windlass, chain, and pulley. A rope was fastened around their horns, an iron hook was inserted, when suddenly off they go, their legs waving frantically; others quite passive but with eyes rolling wildly. Fifteen or twenty feet up, they swing over to the ship and are deposited in the hold; some quite dazed go off quietly to their places, others dance about in rage at the indignity to which they have been subjected. At ports below, many cattle were taken on in this way for journeys to other regions, but a later regulation now prohibits this rather barbarous method of embarkation, and the animals are hoisted by means of a girdle placed under their bellies.

The ship was discharging and receiving freight at different hatches. To watch operations was interesting. The men were stalwart bronze fellows, who, wearing a single

garment, displayed splendid muscles on back and shoulders.

The harbour is beautiful, surrounded on three sides by green wooded hills, some might almost be dignified as mountains; a wide stream coming down at the west includes the Pacific entrance to the Canal. Not far below are pretty islands and the masts of a shipwrecked vessel. At high tide all is admirable, but when the water has fallen eighteen feet as it does twice a day, the ship lies in the mud, and from either green shore stretches an ugly expanse of flats.

Slowly the days pass. Shall we get away Sunday morning or night? The captain swears, the chief officer ditto — and growls. Sunday night, they say, we shall go; but we must leave near high tide and before all is ready it is too late. At last, early Monday morning, we are off. As we sail away, we have a charming picture from the stern; looking backward, the city of Panama appears at our right, situated on a promontory with water on three sides, a fine location. Now it is as healthy a city as any to be found in the torrid zone and as most of those in temperate regions.

The Peaceful Ocean does not belie its name, either now or on any subsequent voyage. While a few passengers succumb to *mal de mer*, it would seem that with a little resolution this might be avoided. Several days we are out of sight of land, but in the early morning of Friday we find ourselves in the Gulf of Guayaquil. We have heard alarming reports of the great heat to be experienced on the river, that for three days we may expect to be parboiled, perhaps two days more, in quarantine at our own expense. The previous night had been cool enough for a blanket, though as usual in the early morning I was compelled to step to the door for a breath of fresh air. At six, low distant shores are visible on both sides. The quarantine station, Puná, is on an island at the mouth of the river. Here we have anxious moments. Boats put out from shore; the captain is at the rail. "Have you a clean bill of health?" says the doctor. "Ay, sir!" "Any sick of contagious

diseases?" "No, sir!" "Any sick at all?" "One." Up comes the doctor. All the cabin passengers are cursorily inspected, a few who look too pale or red, a little more carefully. At length we learn that all is satisfactory and we have escaped quarantine.

On we sail, watching the low green shores heavily fringed with trees or bushes. The back country is well wooded. Low clouds hanging over the shore appear like mountains, yet suddenly among these is seen a *real* mountain, a long ridge and peak of blue, impressive and lofty, above the clouds which conceal its base. But not a glimpse of Chimborazo, the great Ecuadorean giant, did I have, either now or on any subsequent voyage, as it is usually concealed by clouds. The mountain, though famous, is not so high as many persons suppose, only about 20,600 feet. Without doubt there are in South America a hundred loftier peaks of which the names of many are unknown, some, perhaps, having none.

At eleven o'clock we approach the city, Guayaquil, a pretty enough place from the steamer's deck, but one to be avoided. Stretching for several miles along the river front, it has but shallow depth. A few buildings are prominent, the hospital, the city hall, churches, but we do not venture on shore; only a Peruvian gentleman whose horror of the place is great, but whom acute facial neuralgia impels to seek a physician or at least an apothecary. The Professor was inclined to investigate but deferred to my wish that no chances be taken on the way down. On the return it would be his own affair. But where is the intense heat that was promised? Where are the mosquitoes? Even at night they fail to appear. In vain, happily, have I carried my mosquito netting up and down on four voyages. At last I learned that they really do have mosquitoes on the river, swarms of them, making the wood-work black, but in the rainy season only, here not so long as at Panama, from December to June, or an even shorter time. It is wisdom to avoid that period.

Saturday afternoon we sailed down the river and gulf to find ourselves Sunday morning at anchor in the harbour at Paita, the most northern of the chief ports of Peru. The coast of this country is unlike any other in the world. To one sailing from Panama in ignorance of its peculiarities it presents a series of surprises. One naturally expects the climate in the torrid zone, at least at sea level, to be hot; but the morning after leaving Guayaquil, where the heat is always considerable if not oppressive, we find the air so cool that warmer clothing is desirable, and from this port onward I wear the moderately heavy underwear that suffices in winter at home. We are here but $3\frac{1}{2}^{\circ}$ south of the equator and the journey of 1,200 miles down the coast of Peru is all within the tropics, yet we have a cool and agreeable climate in which exercise is enjoyable and golf cape or steamer rug often useful. Of this moderate temperature the primary cause is the presence of an Antarctic current flowing up from the South Polar regions, until at Point Paríña in Northern Peru, it meets a hot stream and both turn westward across the Pacific. The lofty mountains near the shore also contribute to the coolness.

A second astonishing phenomenon is that while hitherto we have observed the luxuriant vegetation to be expected in the tropics, on turning the corner of Peru we have not only a different climate but an absolutely barren shore. For the entire distance of the Peruvian coast there is almost total absence of vegetation, hardly a tree, shrub, or vestige of verdure being visible, save where, at considerable intervals, a stream flows down from the mountains. This condition is due, not to any fault of the soil, but merely to a lack of moisture.

After a week on board ship, the barren shore seems attractive, and as there is no longer danger from yellow fever, many passengers improve the opportunity to land. A nearer view proves to us the reality of the desert. "Paita" said the captain, "is the driest place on earth." From its appearance we are not disposed to dispute the fact, but hav-

ing heard that at Iquique it never rains, while at Paita it rains once in seven years, we request an explanation of the mystery. "O," said the captain, "that is easy. In Iquique there are heavy dews. Here there is nothing, and now it has skipped one shower and it is fourteen years since it has rained." That this was no idle jest is evident from the fact that on later voyages I have been told that it was fifteen or seventeen years since it had rained, so that two showers were lacking; not until February, 1910, was the long drought broken.

Paita is a funny little place, port of the city Piura with which it is connected by rail. The walls of the houses are of round cane or bamboo sticks set perpendicularly: some covered over with plaster, in places partly peeled off, while others never had any. The streets are ten or twelve feet wide, the sidewalks three.

Many natives came on board ship with various articles to sell, paroquets, mocking birds, fruits, ancient and modern pottery, and Panama hats; for Panama hats, be it understood, were never made in Panama (there is a late attempt to introduce the industry), but chiefly and originally in Ecuador, now also in a single town in Peru, Catacaos, east of Paita. Half of the 25,000 or 30,000 inhabitants are engaged in this occupation. The straw grows in a damp region of Ecuador and should be braided in a humid atmosphere, so the industry seems out of place in this extraordinarily dry country. For common hats the straw is moistened with water, but finer ones are made without wetting between the hours of 2:30 and 8 A.M., the dampest hours of the twenty-four, by persons labouring from six to eight hours a day. Cheap hats are made in a week or two, better ones in from three to six weeks or more. At Paita hats may be bought at from two to ten dollars, one fourth (or less) the price in New York of goods of the same quality.

As we were leaving in the afternoon I observed that the temperature which in Panama and Guayaquil had been near 90° was now but 66°; in my room that night it fell to 60°;

doubtless it was lower outside. A heavy double blanket hardly sufficed to keep me warm, but my rug helped out. A fresh breeze caused a moderate swell. In the morning a foggy cloud concealed the sun, making a gloomy sea. After four voyages I should say that bright sunshine along the West Coast is the exception during their winter season, which, of course, corresponds with our summer. At Etén, noted as a disagreeable anchorage, there is a more open roadstead than at Paita. So heavy is the swell that the steps are not lowered. A few persons come on board in a sort of barrel minus one side, so arranged that one person sits down while another stands facing him, when the barrel is drawn up by a rope in the same manner as the cattle. After a half hour's wait, the unusual decision is made that it is too rough to receive or discharge freight. Well pleased, we sail onward, hoping to overtake at Callao the preceding steamer for the south which we hear has been delayed. For the first time we have guards on the table and a few more yield to seasickness. Others regret the absence of warm clothing which they had supposed would not be needed in the torrid zone.

The coast presents, for the most part, a study in browns and yellows, diversified by occasional patches of green, varying in size according to that of the stream and the amount of irrigation in the valley. The view of the shore would soon become monotonous, were it not for the third peculiarity, the great mountain range near the sea. Although this is indicated on the maps we did not dream it was *so* near. To be sure there are foothills; and in the northern and southern sections of Peru, above high bluffs, a plain stretches away to lofty mountains; yet these are near enough to be always in sight were it not for the fourth peculiarity of a rainless country, the low clouds (or mist) which generally obscure the vision. In Central Peru the mountains come down to the shore, often with an appearance of several ranges of varying altitudes, a frowning, jagged, almost perpendicular black wall in the rear. Had

we a clear view of these immense heights the voyage would to the mountain-lover be of real fascination; as it is the interest flags, unless one is especially fond of the ocean; for the long lying at anchor to discharge and take on freight becomes tedious to the traveller eager to arrive at his destination.

The disadvantage of these delays being evident to the Peruvian Government, a line of express steamers was planned to run from Callao to Panama. The old companies, hitherto reluctant in any way to make concessions for the convenience of travellers, thereupon decided to forestall this improvement and in March, 1909, began an express bi-weekly service, sailing in six days instead of the former ten, from Callao to Panama, omitting the unpleasant trip to Guayaquil, calling instead at Puná, the quarantine station, where passengers may be transferred to a local steamboat for a sail up the river. A bi-weekly service of Peruvian steamers was later installed with ships of 6,000 tons making the trip in from four to five days.

At the port below Etén, Pacasmayo, the swell is not so strong and we take on the prescribed quantity of freight; bags of rice and hides. After a five hours' run at night, a day is spent at Huanchacho, not a usual port of call for the Panama steamers, but perhaps as a punishment for our skipping Etén; cane sugar and alcohol for Mollendo and Valparaiso are the principal cargo received here. It is but a two hours' run to Salaverry, where the next day is spent. Thus much time is wasted at night in addition to what is devoted to loading and unloading freight by day. Salaverry is the port of Trujillo, one of the largest cities of Peru, a half hour up a fertile valley, in which much sugar is produced. Frequently one hundred persons embark here for Callao, but luckily not this time. All of the ports except Pacasmayo are no more than a few houses on the barren shore, with a railroad leading to a considerable town in a well-watered valley some miles away. Salaverry, the last port before Callao, is called twenty-two hours distant. As

it is 9:30 P. M. ere we sail, we despair of arriving the next evening in time to catch the *Columbia*. But the captain seems in a hurry as well as the passengers. The ship goes faster than ever before. Mrs. B—— and I have our last game of cribbage; everyone is packed and eager to depart, and sailing at unusual speed we arrive at seven Thursday evening, anchoring in the outer harbour.

The lights along the water front gleam a happy welcome; we dimly see the neighbouring hills, and the numerous ships lying at the dock or anchored outside. This is the only place in the long voyage from Panama to the Straits where there are docks to which ships can approach. The other Peruvian ports, the Chilian I suppose as well, have long iron piers extending often a quarter of a mile out into the sea, but in water so shallow that the ship must anchor a long way off, the pier serving merely for lighters. At Callao the boats do not go to the docks on arrival and sometimes not at all. We are soon surrounded by a large number of rowboats, many bringing friends to welcome the passengers, whose names had been cabled from Panama, or from the smaller ports where they had come on board. Enthusiastic greetings are exchanged, such as we seldom see in our own country. Of course there was no one to meet us, but the excitement is contagious. Our friend, Mrs. B——, has a husband at Cerro de Pasco whom she hardly expects to see here.¹ But we all watch the boats that come from shore and when she steps quickly towards the stairs at the side of the ship we are not surprised to see her clasped in the arms of a stalwart man and rejoice in her glad reception. Then we turn to observe our Peruvian friend, Mr. V——, a lately bereaved widower, whose relatives have now come on board; he embraces all in turn as their custom is; they kiss his little son and daughter, and presently he departs with them to the shore, leaving his baggage, as he must, to be inspected at the customs on the morrow.

Friday morning we learn on going ashore that we may be transferred to the *Columbia* which has not yet departed for

the south. In Lima, a half hour by rail, I present some letters of introduction, receiving much kindness and courtesy from several Peruvians, from our Ambassador, Mr. Dudley, Mr. L. H. Shearman of the house of W. R. Grace, and Mr. F. L. Crosby of The American Trading Company. On Monday removing to the *Columbia*, about midnight we are again under way.

Between two of the ports farther south, Pisco and Chala, a strange phenomenon is observed on the sandy slope near the shore, a curious figure of large dimensions in the form of a candelabrum. Inquiring into the mystery, I learn from a gentleman of Lima that this was constructed about sixty years ago by Father Guadalupe in gratitude for a miraculous well which in answer to prayer appeared in the desert some miles away. The gentleman had himself seen this memorial twenty-five years earlier, when it looked just the same as now. The figure appears as if made by deep trenches and must be several hundred feet in length and of considerable depth to show as it does from a distance. It seemed odd that the trenches did not become filled with sand, but subsequently I was informed that pious indians from the nearest town every year come to clear them out, thus preserving the figure in its original form.

On the morning of the 18th of July, we arrive at Mollendo, the port of our destination, whence the Southern Railway of Peru runs up to Arequipa and beyond to Lake Titicaca on the boundary of Peru and Bolivia. While fortune favoured us in that we had made the voyage in from one to three weeks less time than any who sailed from New York during the month previous, we were, nevertheless, a week behind, as we were due July 11th. This loss of a week proved a serious matter as the sequel shows.

As a matter of course, I had not entered upon so great an undertaking without realising its difficulties, nor procured guides from Switzerland with the expectation of an immediate and easy walk to the top of the great mountain on which Conway had twice been compelled to retreat. My

original plan to set out in May had been impossible of realisation on account of procuring funds only at the eleventh hour, but with my usual good luck in *travelling*, the delay of a month in starting had caused but a week's difference in my arrival. I was still much earlier than Conway and if at first defeated there was time for several efforts and victory in the end. Yet an incident at Panama had disturbed me not a little. The Professor, approaching me one day with a rather excited air, had exclaimed, "I'm frightened, I am alarmed at what I have overheard you say." Wondering of what terrible indiscretion I had been guilty, I inquired what this might be. "Why," said the Professor, "I heard you say that you didn't expect to get back before the middle of October or the first of November." "Certainly," I replied; "why not?" "Indeed," responded the scientist, "I had no idea it would take so long as that." "Surely," I returned, "it is quite evident. The journey each way requires four or five weeks, then we must get accustomed to the altitude and make preparations. It is impossible to know what difficulties we may meet with or what weather; how many efforts we shall make to no purpose. If the first attempt fails of course we must try again. After our arrival in Bolivia we may be six weeks or ten in successfully carrying out our enterprise." "Well," rejoined the Professor, "I had no idea it would take so long as that, but now that I am in it I shall have to see it through." The matter rested there, but I felt somewhat disquieted.

CHAPTER III

ACROSS THE DESERT, MOUNTAINS, AND LAKE TITICACA TO LA PAZ

MOLLENDO, the terminus of the Southern Railway, the busiest port in Peru aside from Callao, has without doubt the very worst harbour, in fact, no harbour at all. The town is perched on a sloping shelf twenty or thirty feet above the rocky shore, against which the surf is always dashing. The sea is so rough that passengers often must be lowered to the boats by means of barrels, such as we saw at Etén, and sometimes cannot be landed at all, but must at their own expense go on to the next port. A few miles to the north at Islay is a nice quiet anchorage. Unfortunately someone of influence owned land at Mollendo; so, as has happened in other countries, an excellent harbour which should have served as the railway terminus was renounced for this wretched site, where the sea is too turbulent even for an iron pier for the lighters, such as is found at all the other ports. Within the last few years a breakwater has been constructed, which proves of slight benefit.¹

Our party escaped the barrel, but on reaching the stairs which lead up to the mole, we had need to be agile, spring at the right moment, and run up quickly, or have a foot caught, or maybe get a good sprinkle by the following wave. As the train left at 8:30 A. M. there was much hurry and bustle about getting on shore and away. Everyone was very polite, and owing to letters from Lima our baggage was passed without examination, but not all arrived in time. The Professor kindly offered to remain and look after this while the Swiss guides and I took the train to Arequipa.

¹ It is now proposed to extend the railway to the better harbour.

For a few miles the railway hugs a sandy shore where beautiful rollers are always coming in from Australia or some other remote region; then it turns up a valley and soon we are climbing, climbing, with steep grade and great curves around the bluffs and cañons, until an hour or two later, after an ascent of 3,000 feet, we come out on the great plateau leading away to distant mountains. Of the cañon where we climb, the lower slopes are barren, above are dry bushes about the size of sage brush; but on my last descent in 1908, they proved to be mostly heliotrope, at that time green and in blossom. In this section of the coast as elsewhere it is not supposed to rain, but it comes nearer to it than farther north, and in the wet season a heavy mist hanging over the shore almost answers the purpose, causing many flowers to blossom on these barren hillsides. From the Tambo station 1,000 feet up, we have a glimpse at the south of the beautifully green valley of the Tambo River far below, where much sugar is produced and many fruits are raised.

The plateau above is covered with deep yellow sand and many scattered stones, some of these black as a coal; a few as large as one's head, but more the size of a child's fist. Here we have absolute desert, no blade of grass nor vegetation of any kind. Instead, there are graceful crescent-shaped sand-dunes, generally from three to ten feet high, travelling slowly along at the rate of sixty feet a year. On the outside there is a gentle slope of white or greyish sand toward the prevailing south wind, while the inner wall is much more nearly perpendicular. In the distance are curious hills, variegated with red, brown, and white; farther away are the great mountains, El Misti and Chachani, with small caps of snow; Pichu-Pichu, a long range slightly lower and nearer. At the way stations women offer for sale a variety of fruit and other eatables; but the fruits do not grow there. Some of the stations have not a glint of green, others are little oases in the desert; but the water is used sparingly, since it is piped from a mountain stream near Arequipa all

the way down to Mollendo for the service of the railway and the port.

At 10:30 the train pauses for breakfast at Cochendo. No ten minutes for refreshments here, but a decorous forty minutes in which to eat a good meal of several courses. Later we run along the side of a deep cañon at the bottom of which, in tortuous course westward, flows the Vitor River, fringed with green. Farther up, the cañon is wider, and houses and gardens occupy the broad flat floor. In the rugged, sometimes perpendicular walls are rocks of red and grey, signs of copper and iron. It grows warm, but not too hot. An enchanting view of El Misti and Chachani, with the city of Arequipa on the verdant slopes of a broadening valley, completes a ride of strange and unique charm.

At 4:30 P. M. we reach the Arequipa station at the lower edge of the city, a mile from the principal plaza. A row of little tram cars drawn by burros is always in waiting for the trains. By one of these we are presently deposited in front of the Hotel Central, called the best in the place, but far from elegant. It is built mostly of a single story, but with two on the street, around a central court or patio; from my upper room, I delighted to look over at beautiful Misti, on the lower slope of which the town is situated. Here is a soft and genial climate of perennial June, rather warm in the sun at noon-day, but with ever cool mornings and evenings. The following afternoon, Sunday, we found it a pleasant walk to the Harvard Observatory on the edge of the town, two miles distant, where Professor and Mrs. Bailey gave us cordial greeting. The guides had brought along the barometer to compare with the one at the Observatory, and we were mutually pleased to find the readings practically the same. A charming place for afternoon tea is the large upper veranda looking towards El Misti, the top of which, eleven miles distant in a direct line, is thirty-nine miles by the road, which makes a complete circuit of the mountain. A saddle horse was urged upon me for the return as far as the end of the car line, whence I went by

tram to the station to meet the scientist. Escorted by Mr. Victor H. McCord, long the obliging and popular superintendent of the road, to whom I had brought a letter of introduction, we called upon his newly appointed successor, Mr. Clark, who was greatly interested in our expedition. To him, to Mr. W. R. Morkill, and to other officials in Peru and Bolivia who, appreciating the benefits resulting from such travel and writings, extended courtesies of whatever nature, I gladly express my most cordial thanks.

Monday morning, July 20, saw us again on our way. I had *planned* to remain a week at Arequipa, 7,500 feet above the sea, in order gradually to prepare our frames for the great altitudes before us, making in the meantime the ascent of El Misti, 19,200 feet, which would be a valuable training in endurance for the loftier mountain above. However, at the urgent solicitation of the Professor, who was seconded by the guides, against my own preference and judgment, I had consented to take the first semi-weekly train for Puno, on the border of Lake Titicaca. Our long day's ride began at seven, for while the journey was of no great distance, about 220 miles, it was mainly up hill and progress was slow. Fortunately, the Professor and I were invited by some officials of the road to share with them a special compartment, where we had plenty of room and comfort; for the single first-class coach, as usual, was crowded. After leaving the beautiful verdure around Arequipa we are again on the desert, but close to the mountains, winding in and out on the west and north slopes of Chachani (not Misti, as one writer has it). The ground is largely volcanic ash with many beds of lava rock. There is much sameness to the scenery, except for glimpses of a great snow-covered mountain massif at the north called Amfato, rising solitary in the plateau, a second farther on of similar shape, probably the rightful claimant of the more familiar name Coropuna, the two a long distance from us and apparently from each other.

Breakfast is at a place called Pampa de Arrieros, at an altitude of 12,840 feet. Still we climb, now behind Chachani

and Misti, finding less snow (on Misti none at all) on the north slope where there is more sunshine. In the distance are occasional vicuñas, and droves of llamas and alpacas pasturing on the herbage; for after passing the Coast Cordillera the soil is better watered and well covered with brown bunch grass, a good food for cattle. We are now on the high plateau region where the ground is hilly and rolling. Below, near Arequipa, I saw no ordinary grass, but cultivated fields of great variety, including many of green, luxuriant alfalfa. We took various observations with our clinical thermometers and other instruments. At Vincocaya, altitude 14,360 feet, my pulse had risen from its ordinary 60-70 to 78; Maquignaz's was very faint, but seemed to be 116, with temperature 99°. Near the highest point of the road, 14,000 feet, two large lakes among the hills, gave pleasing variety to the landscape. Beyond these down to Lake Titicaca the outlook is rather dull, the atmosphere cold and raw. At Juliaca, a considerable town, and junction with the road towards Cuzco, natives board the train in so large numbers that two extra cars are added. Meanwhile an invasion of our compartment is attempted. One indian woman succeeds in getting in and creates amusement by sitting down on the floor and refusing to budge until on the arrival of the other cars she is ultimately expelled. Coming after dark to the dock at Puno, on the shore of Lake Titicaca, we go on board a small steamer, the Coya, built in Scotland, brought over in pieces, and put together here.

This ride from the coast up to and over the western range of the Andes is one of novelty and interest, at times of beauty and grandeur; but to pass, within sixty hours, from the sea to an altitude of 14,666 feet is sufficient to disturb the interior economy of all save the soundest constitutions. Persons, however, who are in any way afflicted, often seem loath to acknowledge that they have mountain sickness, here called *soroche*, although this is very common, preferring to believe that it is merely a coincidence that they fall ill at this elevation. So when our scientist, who laboured under

the disadvantage of being thirty-odd hours from Mollendo, was attacked with a violent sick-headache, which caused him much suffering during the afternoon on the railway and the whole night at Puno, he, too, believed that he would have been afflicted just the same at a lower elevation; certain it is that at Lima he was in like distress. The rest of us attested to sound physical condition by not a sign of discomfort, and, after passing the night on board ship at the dock, we sailed all day across the noble Lake Titicaca, fourteen times the size of Lake Geneva and 12,500 feet above the sea; the highest lake in the world where steamboats ply. We sailed past promontories, bays, and cultivated islands, among these the Isles of the Sun and Moon, early home of the ancient Incas, whence it is said they issued forth on their career of conquest, resulting in the establishment of a great empire. Here are still remains of their ancient palaces, larger, it is said, than those existing at their later capital, Cuzco. In a magnificent range of snow-clad mountains to the east, the Cordillera Real, where Mont Blanc would be lost among the foothills, we had our first view of gigantic Sorata or Illampu, which even to the guides looked formidable and well worthy the preparations for its conquest. Lauber remarked that it was worse than he expected, but Maquignaz declared that we could climb it any way.

In the afternoon we turned from the regular course in the direction of Copacabana, where many of our passengers were landed. We improved the hour of delay by going on shore to visit this far-famed shrine. Within a few days a great festival to the Virgin would be celebrated, for which crowds of indians were flocking thither, some by boat but more on foot, from one or two hundred miles around. In the curious old church we saw the High Altar being decorated with plates of silver a quarter of an inch thick. In a side chapel upstairs was the noted image of the Virgin, richly dressed in white satin, bespangled and jewelled to a remarkable degree. This image is said to cure all diseases. Such festivals, I was informed, whether to the Virgin or mere



Balsas, Boats of Natives, on Lake Titicaca



La Paz, Mt. Illimani

U. of M.

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Saint's Days, were largely an opportunity for drunken spree, the truth of which statement I was able later to confirm from my own observation. Near the church was an old square temple with four columns of the Roman Doric style, said to date from a period prior to the coming of the Spaniards.

The following morning we found ourselves at the port of Guaqui, at the south end of the lake, whence a railroad leads to La Paz. Comfortable cars were in waiting, in which we were soon established for a ride on the great plateau. Now in Bolivian territory we experienced no less kindness and hospitality than in Peru, receiving every courtesy from Mr. Pierce-Hope, who arranged by telegram for a special carriage to meet us at the end of the railroad. We met, too, a son of President Pando, who cordially assured us that we should have no customs' dues, and that our baggage should be brought directly to the hotel. The ride over the brown plain was between low hills on the left and higher ones, with a thin mantle of fresh snow, several miles away at the right. We saw many indian villages and single dwellings, these made of sun-dried bricks. The houses have thatched sloping roofs, and are surrounded by walls of big bricks, though stone walls are used to separate the cultivated ploughed fields, of which there are many. Near the lake a great part of the land is covered with bunch grass. We saw many cows with long rough hair, and trains of donkeys, mules, and llamas; also indian men and women, not very prepossessing in appearance.

After a comfortable three hours' ride we were set down in the midst of nowhere, at the end of the road. An unseasonable snowstorm gave signs of the displeasure of the local divinities. In an antiquated chariot which had been sent up to meet us, we were soon rattling over the plain. Suddenly passing the brink of the *alto*, as the height above the city is called by those dwelling below, as we skirt the sides of a cliff in the long curves of a well-graded road, we catch a glimpse, through the heavy mist, of the red roofs of La

Paz, a thousand feet beneath. Here in the heart of the Andes is this singularly situated city of 60,000 inhabitants, unique in the whole world; with an elevation of 12,000 feet, the highest large city on the globe, nevertheless at the bottom of a cañon 1,000 feet deep. The curiously carved basin has walls on three sides, so irregular in shape that they conceal the outlet on the fourth side, though leaving an opening there. At a distance, magnificently overtopping these walls, is the great and radiant snow-crowned Mt. Illimani. Who, suddenly awaking here, would dream that the city hidden away in the depths of this valley with a mountain rising 9,000 feet above, is itself higher than many a noted Alpine summit, and nearly twice as high as the top of Mt. Washington? Twelve thousand feet above the sea, which in other lands would mean a region of perpetual snow, here signifies a temperate clime where flowers blossom throughout the year, and a rare inch or two of snow by night quickly vanishes in the morrow's sunshine.

CHAPTER IV

IN LA PAZ

LA PAZ is a city of contradictions and surprises, where winter and summer live together, and the 16th and 20th centuries walk side by side. From the height above, it appears to occupy the broad floor of a valley, but this is appearance only. At the outskirts of the town the way becomes steeper. We plunge down narrow streets, turning short corners, till our careless coachman, driving four horses, cramps a wheel so that he is obliged to take off the animals and hitch them to the rear axle before the coach is righted. Crossing a streamlet called the Chuqueyapu River, we ascend sharply on the other side to the principal city plaza, halting in safety at one corner, at the door of the Grand Hotel Guibert, the leading and most ancient hostelry of the city. The hotel, on account of the slope of the hill, having two stories front and three back, is built, as are practically all buildings of whatever nature in Spanish America, around a pretty court or patio. It has a second side patio around which are additional sleeping rooms, with the kitchen, etc., below. While some conveniences were lacking, even necessities as we regard them, such as bathroom and toilet with running water, the large bedrooms were comfortably furnished with brussels carpet and heavy handsome furniture, a curtained bed with nice warm blankets. There was no hotel parlour or reception room, guests being therefore received in one's apartment whether of one or two rooms, and occasionally sent up unannounced. On both first and second floors, were several dining rooms, with the same meals served in each.

We arrived Wednesday, July 22. As our baggage did not appear, it was necessary the following morning to go

in search of it to the Custom House. Transportation thence to the hotel several blocks away, two of these up a very steep hill, was by means of indians who carried on their backs the large boxes, each weighing over 200 pounds. Expressmen here who groan over stairs would regard these men with amazement. Ten centavos apiece I was told was a sufficient fee, but I could hardly reconcile my conscience to that, and gave double to those who brought the heavier pieces, *this* being barely eight cents of our money. The men were Aymará indians, obviously of great strength to carry such burdens at any altitude, still more at this, where many persons puff from slowly walking up the hills. Reporters soon began to call in quite cosmopolitan style, for there are several newspapers. My Spanish was rather rudimentary, but helped out by French and English, I made them understand all that was essential.

The weather, unpleasant on our arrival, soon brightened, but I was distressed by the occurrence of several rains, unusual in this the dry season; for these indicated fresh snow upon the mountain and consequently bad conditions for climbing. For this reason I the more regretted that we had not remained in Arequipa for the ascent of El Misti, and did not at once hasten preparations for departure, though always sufficiently busy. The weather was so cool that I was compelled to wear the coat of my travelling suit in the house as well as out; in fact, by day it seemed warmer outside; the temperature of my room, about 44° Fah. in the morning, with the heat of an oil stove rose only to 56° or 58° in the afternoon. With letters of introduction we made calls on several dignitaries, Señor Don Ignacio Calderón, Secretary of Hacienda or Finance, now the Bolivian Minister at Washington, whose wife was a Baltimore lady, and the American Minister, Mr. William B. Sorsby. The gentlemen returned our calls the same day. Also came the Secretary of State, Señor Villasóhn, with whom I conversed in French. In company with Señor Calderón, who, of course, spoke English, I called on Señor Capriles, Acting President, in the absence of



Hotel Guibert, La Paz



Miss Peck and party in patio, Hotel Guibert

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President Pando. All were extremely courteous and promised every needed assistance. With the American Minister came Mr. and Mrs. T. Clive Sheppard, who were living in the Hotel Guibert and who, on my several trips to South America, did much to make my stay pleasant. Mr. Sheppard, an Englishman, superintendent of the new railway and Subdirector of Public Works, gave me much valuable information in regard to Bolivia, besides showing other kindnesses.

We received invitations to luncheon with the American Minister on Sunday, to afternoon tea with Mrs. Sheppard, and to dine Monday evening with the Calderóns. Persons who have supposed that, in this remote country, life must be barbarous, would be astonished at the elaborateness of our entertainment. At the luncheon we had six courses with three kinds of wine, at the dinner, eleven or twelve courses with five kinds of wine. The table was elegantly decorated and served, some of the food similar to what we might have at home, other dishes of a novel character, but most of them extremely good.

Other callers came with advice and offers of assistance. There was much to occupy me besides. Monday, July 25, funeral services were held in honour of the late Pope. A procession of Government officials and of military went to the pro-cathedral for service, and I took a number of pictures. The soldiers marched well, and I was told by one who had travelled in the various countries that, though rather undersized, they made the best appearance of any in South America.

I had thought myself fortunate in being able to secure as leading guide, Antoine Maquignaz, who not only had acted as such for the Duke of the Abruzzi on his successful ascent of Mt. St. Elias, but five years previous, in the service of Sir Martin Conway, had visited Bolivia and almost reached the summit of the mountain that was the goal of my ambition. I was, however, destined to discover that what I had naturally considered a great advantage was really the opposite. Having had some unpleasant experiences with the

indians on his former visit, Maquignaz was very timid about them; it proved unnecessarily so; whereas a guide who had never been there before would probably not have thought of being afraid. On M ——'s arrival in New York he had at once declared that we must have soldiers to protect us from the indians, which assertion he often repeated. I had read in Conway's book of their being attacked by the natives with stones, and as M —— was urgent in the matter, I approached the Government in regard to it. I was, however, courteously informed that the country was perfectly safe and the indians harmless; that there was, therefore, no occasion for soldiers. This statement being corroborated both by natives and by a few foreigners who had been some time in the country, furthermore as it was impossible to secure the desired escort, I finally prevailed upon the guides to venture forth without, on condition that they be provided with rifles and revolvers. I had borrowed one of the latter in New York, another was obtained in La Paz. Two army rifles were promised by the Secretary of War. These, after many calls on various persons, were finally secured from the Intendente of Police.

As I had brought two mercurial barometers for an accurate measurement of the mountain, and as M —— said the Professor must accompany us on the climb because we must have at least three men on the ice, there was need of some one else to take observations at the base station. Accordingly, Señor Montes, the Secretary of War, kindly consented to send at the expense of the Government an army officer to make the observations at Achacachi, near the foot of the mountain, on the shore of Lake Titicaca. This officer, Subteniente Epifanio L. Llano, though unfamiliar with the use of the instruments, after a little instruction from me, became very accurate in taking observations. It was a pity that his labours proved futile.

A most important matter was the selection of an arriero, a man who provides and looks after the mules; for on mule-back we were to proceed ninety miles to the mountain. After considerable effort in various directions an apparently

good man was secured who could speak fluently both Spanish and Aymará, the latter the language of the indians of this region, although Quichua, the chief dialect of the Peruvian indians, is used also in some parts of Bolivia. This man was a cholo or half breed, of whom there are many in La Paz, where they form a sort of middle class between the Spanish Americans and the pure blooded indians. By the aid of Mr. Jackson, a young Harvard graduate, then engaged in the rubber business in the town of Sorata, an elaborate contract was drawn up, according to which the arriero was to receive 115 bolivians, about \$45.00 per week for his services and those of eight mules and an indian. An advance payment was made, as is customary in all such transactions.

How I did rush about during the last four days of preparation! doubtless to the great astonishment if not horror of the Bolivians, who never hurry themselves, and who would least of all expect a woman to do so. Many purchases were made to add to our stores brought from New York; canned meat, sugar, chocolate, etc. The prices were double those at home. The chocolate of native make was extremely coarse and hardly palatable for eating. A five gallon can of kerosene for our primus oil stove cost over \$2.00 gold. Almost as important as the fuel was a bag of coca leaves. Without coca the indians would decline arduous labour; a strong stimulant and sedative as well, it is excellent to use in emergency, but injurious as a custom; undoubtedly stupefying to the intellect. Chewing coca leaves (from which cocaine, not cocoa, is derived), the indians can defy hunger, thirst, sleep, and fatigue; travelling continuously for several days, if need be, with little food or drink. I have read that when provided with coca the indians do not care to eat, but in my considerable experience with both Quichuas and Aymarás I found them always to have excellent appetites, however much coca they consumed. If *able* to go without eating they evidently did not wish to, eagerly devouring anything within reach.

The coca tree, six or eight feet high, grows in moist valleys on the east slope of the Andes all the way from Colombia to Argentina. The drug is valuable for many complaints, as well as for an anæsthetic, but, like alcohol and opium, its habitual use is a curse. I had heard its value from my friend Mr. White, and had been advised by him to use it myself as well as to provide it for the indian porters. Accordingly, I laid in a good supply. At almost the last moment I paid a visit to the Jesuit College, again to compare barometers, again finding exact correspondence.

On the afternoon of Friday, July 31, came the first prognostication of disaster. I was amazed at being suddenly informed by the Professor that whatever happened *he* intended to leave for home, as his duties there demanded, on the 20th of August; less than a month from the time of our arrival in Bolivia ninety miles from the mountain. If fortune favoured, it was *possible* that the ascent might be made within that time; but if the mountain were in bad condition, if one side proved impracticable, we must make a second or a third attempt. At the first opportunity, the evening of the day following, I remonstrated with the Professor, setting forth that having come down with me at my expense, for the ascent of this mountain, no time limit being set, it was his duty to stay until the mountain was climbed or the attempt abandoned. It had been obvious from the beginning that he could not return in time for the opening of his college, and I was aware that he had secured permission to extend his vacation. The Professor, in response, declared that he had other duties and obligations and must return at the time he had yesterday stated, but if I thought he was not doing the fair thing he would step out of the expedition then and there and make the best of his way home. (Nothing, however, was said as to re-imbursing me for the hundreds of dollars already spent on his account.) Or he would go with me and do the best he could for the limited time and I should pay his expenses home, as previously understood.

I knew of no one whom I could get to take the Professor's



Party about to set out



Pantheon, La Paz

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place. The few foreigners in La Paz were actively engaged in business. The Bolivians have not yet acquired a taste for climbing. I had searched in vain for an interpreter to accompany us. M—— had said we *must* have three men on the ice, and I had counted much on the Professor's being an expert photographer to obtain fine views of the mountain. It was Saturday night; we were to set out on Monday. I had no time to consider or to ask advice, so, though recognising the injustice of the proposition, I made the mistake of accepting the latter alternative, hoping, if my usual good fortune continued, to reach the top of the mountain within the prescribed period. To have the Professor's help for so short a time only, in an undertaking involving the expenditure of thousands of dollars and months of travel, was a terrible and unexpected blow. With anxious forebodings I hurried my preparations for departure.

There were quantities of things to be attended to on Sunday, packing, shopping, and numberless small details, but the Professor, having been invited by Mr. Sorsby to visit a mine, went in spite of my protest, returning only at three P. M. I was, therefore, obliged to rise early and to keep at work all day. Among my purchases in the market-place was a pair of coarse knit stockings of undyed native wool, to be worn as my fourth or outermost pair. In all of my expeditions they have proved highly serviceable. Some sewing was necessary, such as placing big pockets of vicuña fur, large enough for the Japanese stoves, on the outside of my eskimo coat. With such matters, calls, and letter writing, it was two A. M. when I sought my pillow, setting my alarm for six. This was a poor preparation for an arduous journey, and I should have deferred our departure a day to set out in better physical condition, except for the circumstance above mentioned. So tired that I overslept through failing to hear my alarm, I was greatly astonished when I awoke to discover that it was 7:40 A. M. Luckily for me the arriero with his mules, strictly ordered to arrive at seven, according to the custom of the place, did not appear until 8:30; so that my

slothfulness delayed us but a few minutes. The Lieutenant was prompt. The arrangement of the baggage was a two hours' matter. When all was ready we had a group picture taken in the patio.

CHAPTER V

JOURNEY TO MT. ILLAMPU

AT half past ten on the morning of the third of August, our cavalcade, the object of much observation, clattered out of the hotel patio. Our procession seemed quite imposing; first, the arriero, on *horseback*, to be sure, with a fine saddle and embroidered trappings; our officer, also on horseback, resplendent in full white uniform, with spurs and saddle bags, his sword by no means omitted; the rest of us on mules, the guides with rifles tied to their saddles, revolvers in pocket, the Professor similarly equipped with his own weapons; myself in knickerbockers riding astride, but wearing a long ulster, with an opening up to the waist at the back, which thus gave somewhat the appearance of a divided skirt and I trust prevented my shocking the sensibilities of anyone; three mules, heavily laden with baggage, and on foot to look after these an indian of mature years and a boy of fourteen, son of the arriero.

Soon leaving the paved streets behind, we pursue our way along an ancient stony pathway, casting occasional backward glances at the noble form of Illimani which towers grandly above the city, anon, gazing at the steep encircling walls of the cañon and at a distant monument on the edge of the *alto* where we were to emerge from the valley. On the outskirts of the city we pass the Pantheón or cemetery, where most of the people are buried not in the ground, but entombed in enclosing walls somewhat after the fashion of the Roman columbaria. Higher up we see women engaged in laundry work in primitive fashion by a tiny streamlet, industriously whacking the wet clothes against the numerous stones, according to the method of the country.

It required an hour and a half to reach the *alto* and enter

upon the great *puna* as this part of the tableland is called. The monument at the edge we find to be an ancient and dilapidated league post, extremely useful to the traveller coming over the plain, when the track is obliterated by snow, indicating from afar the point where begins the descent into the valley. Here we leave behind almost all traces not only of civilisation but of life, save that which we meet upon the road. Not a village nor even a hut do we pass for hours. The brown rolling plain shows no signs of cultivation; we cross several dry river beds thickly covered with stones. To the right a splendid mountain called Huana Potosí or Cacaaca, appearing steeper than Illimani or Illampu, but probably a little lower, looks inviting for a climb, though assuredly a difficult one. To the left are distant hills of graceful outline.

Though the district is uninhabited, we meet many people, mostly indians, and more animals; troops of donkeys bearing burdens larger than themselves, flocks of sheep, a few droves of hogs, and several herds of cattle, most interesting of all many a troop of graceful llamas, which I never tired of watching. These dignified animals, who carry their heads so high and so proudly, are the distinctive burden bearers of the high plateau regions; animals said to be related to the camel as also to the sheep, for they have very long necks and heavy coarse wool. The white ones are particularly pretty and all have beautiful eyes. I always wanted to pat one of these stately creatures, but never ventured on the familiarity, because I had heard that they are unused to petting and are liable to spit in one's face if displeased. They did not look as if they could be so rude. They have a peculiar independence of spirit, which is betrayed in their haughty bearing. There is a certain load, 100 pounds, which they are able and willing to carry, but if there is a pound beyond, they lie down and refuse to rise until their burden is lightened. Beating avails nothing. They will submit to be killed outright rather than be imposed upon; consequently they are the one sort of animal that is kindly treated and



League Post, Alto above La Paz, Bolivian Cordillera



Llamas on Puna



Travellers on Puna

113011

never beaten, as it would be worse than useless. As the animals are able to obtain sustenance for themselves in any sort of country except absolute desert, they are the cheapest form of transportation for non-perishable articles only, since they travel slowly. Donkeys, they say, take twice as long as mules, and llamas twice as long as donkeys. They not only move slowly, but lose time by grazing on the way.

Here and there we see roofless stone enclosures or corrals, often a mere wall which serves as protection from the wind. Against some of these sit men or women, spinning while watching their flocks, or it may be cooking their dinners. An occasional passing indian displays a fondness for music by playing on a reed instrument resembling a flute. Though having but few notes in a minor key, it still sounds cheerful. The Professor invests and makes valiant efforts to play Yankee Doodle, but does not get beyond the first few notes.

With no pause for luncheon, at half past four, hungry and tired, we arrive at Cocuta, a *tambo* or inn five leagues from La Paz, where we stop for the night, as the next halting place is five hours farther. Riding through a spacious doorway, we enter a large rectangular enclosure, formed by adobe walls and buildings. In the long, low structure at the left is a store with bar or restaurant opening outside. Back of this, entered from the patio, is a guest room furnished with four cane seat chairs, a table, a broad bench or bed which looks like stone, but is merely adobe or dried clay, and narrower benches of the same material. We at once partially allay our hunger from our own stores, but not too much to be ready for dinner at six. This, served in courses, was better than might have been expected from our surroundings; first, a palatable soup with noodles, next beefsteak with a fried egg placed on top, bread we had also, lastly a cup of tea; I took hot orangeade instead. We concluded with some raisins and lump sugar of our own. Fastidiousness on such expeditions has no place, and all ate heartily.

Afterwards I peeped in where the cooking was going on, a dark, smoky room, lighted only by the fire and the door.

Several women of friendly mien, with children, were sitting on stones or the floor. For them a hot soup was cooking, more savoury than the one served to us; soup or stew called *chupe* with potatoes and various herbs being one of the chief articles of their diet. The meat is usually *chalone* or dried sheep, the potatoes may be one of 250 varieties. For potatoes are indigenous to this great plateau region of Peru and Bolivia, while before the coming hither of the Spaniards the Europeans were destitute of this now indispensable article of diet. I have not, however, observed that the potatoes of Peru and Bolivia are any better than those grown in the United States, if they did originate there.

Later, I strolled outside the enclosure in the cold, still moonlight for a look at the great white mountain and over the dark, broad plain. Here, one must needs feel small and insignificant, realising the word "awe" as never in crowded city. Soon all settle down to rest, I occupying the elevated plain, the others spreading their sleeping bags on the floor. Fresh air and exercise make one sleepy, and having been in unconventional situations before, I am soon lost to all surroundings.

Next morning, although up at six, it is eight before we are off, as it is a two hours' operation for the arriero and his assistants to saddle six animals and to collect and arrange the baggage on the other three. Even then it must frequently be readjusted, and the mules have a hard time as well as we. We breakfasted on black coffee and bread, and bestowed in a bag for our luncheon some crackers, sugar, raisins, canned beef, and sardines.

This day the great Illampu with its immense glaciers appears before us and a longer line of snow clad mountains on the right. Soon after noon we arrive at another *tambo*, Machacamarca, where we pause for luncheon. The mules are relieved of their baggage and allowed to graze while we stretch our limbs and procure some fried eggs to supplement our own stores. We are waited on by a woman carrying a baby on her back by means of a shawl, the ordinary method



Tambo, Cocuta



Patio, Achacachi

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of transporting them, obviously much more convenient and better than our way, both for mother and child. Dogs are very common in South America among the poor as well as the rich, and here we saw a hairless specimen, to my taste repulsive in appearance, but of a breed, I am told, prized by dog fanciers on account of its rarity. Our photographs at Machacamamarca included one of an indian man, spinning, as many do, while watching their flocks on the *puna*. Among the indians, apparently, there is no question of woman's work or sphere, both sexes doing whatever happens to be convenient.

In the afternoon, nearer the lake, of which we had a distant glimpse, the land becomes more fertile, and as a consequence is more thickly settled. Our mountain, as we approached, appeared still more imposing, its tremendous array of great snow fields evidently making a deep impression on the Professor, who remarked, "My, it looks cold up there." I suppose it did, but I should never have thought of saying so. We well knew it was extremely cold there, and I had been at great pains to exhort the Professor to prepare for the low temperature, as he had done.

To Guarina was a long day's journey. Eleven hours on mule back is too much for an already tired mortal who has not enjoyed this form of exercise for six years. At half past three I was unable longer to endure my unaccustomed position astride the mule. Beginning to walk, I was soon compelled to remount to cross a stream. In half an hour riding again became intolerable. After an hour's walk, I became too tired for that and was obliged once more to ride; so I continued, when I could no longer endure the one changing to the other. I instructed the Professor, in case I collapsed after my arrival (I assured him that I should not do so before), that he had only to give me some brandy and hot water and I should be quickly restored. Later, half dead with cold and fatigue, I struggled along on foot, alone, in the dark and in the rear, feeling rather forlorn and friendless, as all the others preferred to ride. For some reason the train at length paused and by a desperate effort I got into

the lead, remaining there, as the mules were going slowly, being also very tired, till we reached the edge of the town. Now they plucked up heart, as did we all, and became too animated. In their eagerness for shelter, trying to run into every open doorway and one rushing up a side street, they caused a good deal of trouble to the *arriero* and his assistants, and excitement for the rest.

It was eight o'clock when, at the farther end of the town, we reached the proper *tambo*, which afforded a better room than we had at Cocuta, similarly furnished, but cleaner and with a grass matting over the floor. It was nine before we had anything to eat, but meanwhile aching knees and back had found the adobe bed a welcome resting place, though I did not collapse and was able myself to call for the hot water and cognac which speedily put me to rights.

As our next day's journey to Achacachi, a big indian town near the lake, was six hours only, we were satisfied to set out at ten. On the distant foothills of the range, we saw indian villages and the dwellings of a few large haciendas or estates, the owners of which live, probably, in La Paz or Sorata town, spending a little time in the summer on their farms. Some houses of Guarina and most of those along the way are surrounded by walls made of large blocks of adobe or of undried clay; also there are walls apparently of stones, which, however, are round bits of clay; this part of the country being far less stony than the *puna* near La Paz. There I was reminded of the stony fields near Athens, but there was this difference. At Athens the stones were not removed even when the fields were cultivated. When I had asked why was this, I was informed that they left the stones there to keep the soil down. If they removed the stones, the soil was so light, they said, that it would all blow away. On the plateau they do not fear this result or else they are not so lazy. The indians not only build many thick walls with the stones, but in many places gather the rest into great heaps at frequent intervals, leaving the remainder of the ground in good condition for tillage.

Reaching Achacachi at half past two, for once earlier than we expected, we proceeded to the house of the corregidor, to whom we brought a letter. Here I had a room to myself and a bed, which, I am sorry to say, did not look very inviting. In this place we installed our Lieutenant to take observations with various instruments during the time that we were on the mountain.

Having heard that from a high pass on the northeast side of Illampu, an apparently easy slope leads well towards the summit of the mountain, and that this route might be investigated in one day from the town of Sorata, on Thursday we proceeded thither by a delightful day's journey over a great ridge called the Huallata Pass, first traversing a long causeway between a swamp and the lake, then ascending a big buttress of the mountain to a height of over 14,000 feet. Half way up was a small indian settlement with numerous stone walls, and cattle even at this bleak elevation. At the top of the pass, finding water, we paused for luncheon, having here a fine opportunity to scan, close on our right, the enormous mountain *massif* with several different summits, all looking absolutely impossible from this side. As we descend, we have a beautiful view of the deep Mapiri valley below, the upper end of which is divided into two branches by a sort of promontory projecting from the mountain. The path going out on this for a short distance turns again toward the great cliffs, winds down to the bottom of a deep gorge, crosses a little stream on a picturesque stone bridge, and climbs up half a mile on the other side to a shelf, amid steep inclines, on which is situated at an altitude of 8,000 feet, the pretty town of Sorata with about 8,000 inhabitants.

It was quite dark when we arrived, but we had no difficulty in finding Mr. Jackson's house, where it was highly agreeable to be cordially welcomed by Mrs. Jackson, a charming young Cambridge lady, who, duly chaperoned by her aunt, Miss Amy Fay, the well-known pianist, had come down the year previous to become the bride of her lover from childhood days. Although the only English-speaking woman within a

hundred miles, she seemed perfectly happy in her strange surroundings.

This beautiful valley, with its trees and fragrant flowers, is a pleasing change from the cheerless, treeless plain above on the other side of the pass. The town is favored with a delightful climate in addition to its charmingly picturesque location, close to the head of the valley, where rise in rugged grandeur the tremendous walls of Illampu, nearly 14,000 feet above. In the opposite direction below, a steeply enclosed gorge with bluish purple tints is in sharp contrast to the dazzling mountain summits. In any well populated region the town of Sorata would be a favourite summer or winter resort, and the day is not remote when it will be included in the fashionable tours of South America. At present it is a pretty Bolivian city, headquarters for the rubber industry, carried on by Boston and other companies on the eastern slope of the Andes; further for many miners who follow the various trails in their search for placer deposits, also on the eastern side. Already, indeed, we are in the watershed of the Amazon, the Mapiri stream, by way of the Beni and Madera Rivers, contributing its mite to the great Father of Waters. La Paz, too, though absolutely on the west side of the great Cordillera Real, is on the banks of a little stream which through a deep gorge finds its way to the east, and, also by the Beni and Amazon, to the Atlantic. If some of these waters which are superfluous on the damp eastern slopes could be diverted towards the Pacific, its arid coasts would develop marvellous fertility and well repay the labour.

In Sorata town we find that it will take *two* days to investigate the route on the north side of the mountain, a most desirable thing to do, as it has never been examined either by Conway, or, I believe, by any other mountaineer. That it looks easy from a distance to a person absolutely inexperienced, is no certainty that it is so, but makes it worth an examination. If, however, after investigation, we should try this route, or even try it immediately without success, there would be no time left for the Professor to make an



Mt. Sorata, Illampu from Hualata Pass



Sorata, town, and mountain

Urb. M.

1901

attempt on the Umapusa side with which our guide, M——, is familiar. By that route M—— now declares he will guarantee that we reach the summit. Had he made this statement earlier we should have saved three days by omitting this long journey to the town of Sorata until after making the climb. As it was, although I was anxious to explore the only unknown side of the mountain, it seemed wisest to follow M——'s advice and the route with which he was familiar; so after a day's rest, we in part retraced our steps over the Huallata Pass, turning then to the left down to Umapusa, a *finca* or large estate on the southwest side of the mountain, which we reached at dusk. Being duly established in the *tambo*, after eating a good supper from our own stores, we were getting settled for the night, when M——, for some mysterious reason, became alarmed. Having been assaulted (with stones) by the indians five years before, he was doubtless more timid than he would have been otherwise, it seemed unnecessarily so. He now believed the indians about to attack us. When half way into his sleeping bag, he decided to get out again, and with rifle, revolver, and even his ice-axe, he took his stand by the door. The Professor, though believing M——'s fears groundless, suggested, if M—— really thought there was danger, dividing the night into three watches, he and the two guides each taking one; as there was no need of all remaining awake unless some demonstration was made. I, already ensconced in my sleeping bag, expressed my opinion that it was folly to put credence in a rumour of hostile indians, and politely requested the men to blow out the light so that I could sleep; a measure conducive to safety, supposing the danger to be real. As it was bright moonlight outside and would then be dark within, an attacking party would obviously be at great disadvantage. It was some time before I could get any one to heed my request, after which I fell asleep while the men were still discussing what arrangements should be made. How long M—— kept guard I never knew. Next day, when I asked him where the indians were, he looked rather sheepish and said nothing.

Conversation among us was a little mixed. Maquignaz was Italian Swiss, speaking neither German nor English, while Lauber was German Swiss. They conversed together in French. I spoke French with M—— and German with L——, while the Professor, who spoke no language but his own, addressed both in English, helping out greatly with signs. Lauber, who understood English fairly, translated to Maquignaz when necessary, so that the men got on very well together without much assistance from me.

CHAPTER VI

THE TRAGEDY OF THE FIRST EXPEDITION

THE major domo of the *finca*, Umapusa, to whom I brought a letter from the owner in La Paz, proved to be an unprepossessing, elderly indian with little disposition to aid us. Nothing could be done the evening of our arrival, but on Sunday, the day following, we arranged with him to provide indian porters to carry our baggage up the lower cliffs of the mountains, promising two *bolivians* daily, four times what they would ordinarily earn, to each of the eight required indians. As it would take time to find and secure suitable men, we must remain over until Monday. At ten the next morning they would be there. Our plea for an earlier hour was useless. Ten it must be and in truth the indians were punctual.

But a holiday had been too much for the arriero, who, Monday morning, was half drunken and slow, so that the animals were not ready when the indians appeared. The mules were to keep on a day longer, as we were still a good distance from the point where we should begin to climb. Although the indians had nothing to do but go along with their own effects to be ready for work the day following, they must receive a day's pay in advance and be supplied with a good measure of coca leaves. This done we at length sallied forth. The arriero, however, turned back to speak to a woman who was making great lamentation over his departure. Supposing that he would overtake us in a few moments, as he had done on previous occasions, we gave no especial heed; later, when he did not appear, we hardly ventured to send any one back for him, lest he, too, should be lost to us. It was noon of the day following before we saw the arriero again. Though his boy and the indian served well enough to care

for the mules, this proved a real calamity. I had been particular to engage a man who could speak Aymará, that he might act as interpreter with the indians; but at the critical and necessary moment he was not with us.

From Umapusa we rode along the ridge towards the mountain, passing two villages. The evening before the people at Umapusa had called the natives of the upper villages bad indians; in the morning they said, good indians. It is a noteworthy fact, common I found both to Peru and Bolivia, that the inhabitants of any town or village regard their own people as excellent and trustworthy, but speak of those in adjacent districts as less reliable, and of sections more remote as absolutely unsafe. In the country there is generally a little suspicion and unfriendliness between the indian residents of neighbouring *haciendas* or *fincas*. This state of affairs is no doubt due in part to ignorance and the suspicion arising therefrom; perhaps also to the fact that a certain loyalty usually prevents the indians from robbing their neighbours and employers while they consider other people as fair prey.

In the upper of the two villages, M——, who, being acquainted with the way, was riding ahead with Lauber while the Professor was some distance in the rear, came back to me in alarm, saying, "Some indians have assembled and are picking up stones to throw at us." Withdrawing my gaze from the surrounding landscape to look near at hand in the direction he pointed out, I saw a group of men a little distance ahead, close to our pathway. We were riding along a narrow lane with continuous high walls on both sides, so that we could not avoid passing close to the indians except by turning back and riding a long way around. So I replied, "We can hardly turn back for that. We will go on until they do throw stones at us, any way." So we went on up the narrow lane to meet the fate in store. Drawing nearer we perceived half a dozen men sorting potatoes or tubers of some kind, while others stood by watching. None gave the slightest heed as we passed by, and again I laughed at M——'s foolish apprehensions.



Umapusa, Tambo



Place of Camp. Alt. of valley 15,300 feet

1861

After riding a considerable distance towards the mountain along one side of a great ridge, we turned sharply to the right, and ascending a steep grassy slope crossed over to the other side, pausing half way for luncheon. From the crest of this ridge we had a fine view of great snow fields above, and of a deep narrow valley in front which passes along the southeast face of the mountain, having this with glaciated side valleys and buttresses at the left and considerable hills at the right. Descending a little on the other side, we skirted one or two shorter buttresses, while far below at the right lies the limpid green Lake San Francisco, rarely seen by mortal eyes. I longed to make the entire circuit of this great mountain *massif*, a most interesting and valuable trip, but with the Professor's limited time, such an effort was impossible.

Presently we turned to the left up a narrow hanging valley hemmed in by high, steep walls, finding towards the head a nearly level floor, perhaps a quarter of a mile in width. The Indians, who had long been grumbling, now refused to advance, so we halted rather prematurely. In this romantic spot with tall cliffs towering above us, a bit of glacier gleaming in the upper right hand corner, about five o'clock we encamped. After pitching our tents, we have a good supper of soup, cocoa, etc. The Indians flit about and climb the rocks with evident pleasure, but at length come down and occupy the larger tent, laughing and singing as if in the happiest of moods. My silk tent was so small that the Professor, who had a particularly warm sleeping bag and a heavy sheep-skin suit, decided to rest in front and guard our baggage, while the guides and I slept within. It was a clear, still night and I hoped for the best on the morrow. According to Professor Bailey's excellent aneroid, which had proved extremely accurate on the railroad, we were at an elevation of 15,350 feet; higher than the top of any mountain in the Alps except Mont Blanc. Although I had especially feared the cold, of the severity of which at night I had heard many alarming reports, in this sheltered spot, with the temperature

not far from freezing, I passed the night comfortably without using half the clothing I had brought.

In the morning I was up betimes, about six, hoping to surmount in good season the 3,000 feet, so M—— called it, of rocks to the glacier. But alas! the Professor was ill and did not arise, except to move his sleeping bag to one side in order to take another nap. Being outside the tent, he had suffered from cold during the night and also from illness. Not *soroche*! he said. O no! merely an attack of indigestion such as might afflict any of us; brought on probably by the cheese which he had eaten yesterday, as this did disagree with him about half of the time. The guides and I prepared breakfast, took down the tents, and arranged in packs for the indians the baggage which had so far come on mules. It was a tedious operation and we missed the strength and judgment of the Professor who had been wont to look after the packing. As the guides were unused to such matters, it now devolved mostly on me. When, after several hours, the Professor arose, being still cold, he strolled off down the valley to seek a sunny spot to get warm. Not long after his departure, when the packs were nearly ready, the indians, who had hitherto been wandering aimlessly about, came up and declared to M——, the only one who spoke much Spanish, that they would not ascend the mountain on account of the depth of the snow. It was true that in consequence of the unprecedented precipitation during this supposedly dry season, the snow (M—— said) lay half a mile lower than when he was there before. With sandals merely and no stockings, who could blame the indians for not wishing to climb over snow? Later, however, I was convinced by residents of La Paz that this was only an excuse. The indians often go with bare feet upon the snow, but they have a custom of backing out from any unusual labour, unless held to their contract by a stern man.

M—— in this emergency manifested no moral force or energy, but was limp as a rag, simply repeating to me the indians' words. The men began collecting their things to

go down. The cholo boy and our own indian were preparing to leave with the mules. Were we to be deserted here? My command of Spanish was small, that of the indians equally so, as they spoke little but Aymará; still I made an effort. They knew, of course, what they had been engaged for, and with signs and gestures I insisted that they should go up, finally offering them double what I had agreed to pay. They shook their heads. I continued to urge them in vain. I looked for the Professor to aid, but he seemed beyond call. Doubtless the indians supposed him to be the leader of the expedition and believed that he had already abandoned it; that I could do nothing anyway. So they slipped away homeward leaving us alone.

I turned to the guides and proposed that we should carry the things up ourselves. "Impossible!" said M—— most emphatically. I therefore awaited the return of the Professor, who, when he saw the retreating indians below, came back to inquire the cause. He also asked M—— if we could not go by ourselves. "Impossible!" again said M——. At Umapusa the Professor had declared that if we could not obtain indian porters, of which for a time there seemed doubt, he and the guides would carry the things up. When I had said, "Do you think you can?" he had answered, "Certainly." So now I eagerly awaited his response. "That settles it!" he cried; and now indeed my heart sank. Three men against me, one of whom had been ill all night and not eaten a morsel of breakfast. Could I ask him to carry up loads when he did not offer? Could I over-rule M—— who knew the way and pronounced it impossible? simply reiterating, "I told you we must have soldiers." Never before had I felt so helpless. Heart-sick I said nothing. It was not a question of my own capabilities. I could climb, but certainly I could not carry up tents, sleeping bags, etc. To manage three men seemed beyond my power. Perhaps some of my more experienced married sisters would have done better.

What to do? The mules were about to start down; there

was no time to think or hesitate; only to pack up and go with them. Rage and mortification filled my soul. Those wretched indians! I *couldn't* have it so! But neither could I go alone. With the goal so near, to be turned back, even temporarily, for the lack of indian porters for a single day's journey! We had not wished them to proceed on the glacier. With plenty of time, surely three men might carry the burdens of eleven. By leaving behind all unnecessary articles like the paraphernalia for the use of oxygen, in three days the men, returning for two nights, could certainly carry up the essentials, if, as had been planned, they were able to carry over the ice in two trips what would be needful. This I should have insisted upon, to the extent of threatening the guides with no pay, had not our time (for the Professor) been short. He was determined to return home the next week and had declared that if necessary to reach La Paz in time he would leave me taking one of the guides, if but a day below the summit; and M—— had declared that he would not go on with me alone. Thus we should waste five or six days to no purpose. To descend the mountain and make the weary journey back to La Paz, to find there some one to take the Professor's place, to procure, if possible, the soldiers that M—— now more stoutly than ever declared to be necessary; such seemed the only course open.

A wretched mortal was I, as we descended to Umapusa, revolving various possibilities in my mind. Could we get police at Achacachi to compel the indians to fulfil their contract? M—— said, "No, they are just as bad as the indians." Could we make an attempt on the Sorata side? The Professor had not sufficient time and M—— would not go without another man. Half way down we met our unfaithful arriero coming to meet us. Had he been with us at the camp he might possibly have persuaded the indians to remain. At least we could have communicated with them better. Reaching Umapusa by the middle of the afternoon, after a hasty luncheon, we continued down to Achacachi where we arrived at night after losing our way and wandering

in the dark on the edge of a swamp, beset in a small village by barking dogs which do sometimes bite: the whole a most doleful and heartbreaking experience.

That night I made an effort to induce the Professor to relent and stay over another week, urging the ignominy of such a return, and that, if abject failure could thus be transformed into great success, no one would criticise him for a week's delay in getting back to his home duties. But all in vain!

Too tired and disheartened for an early start, I was planning to set out at noon on our return to La Paz for soldiers and other assistance, when the Professor suggested that if I would remain until Thursday, he and the guides would make a triangulation of the mountain. To this I assented and in the afternoon the three men with a chain 400 feet long measured off a base line of 4,400 feet on the plain near the lake. Early Thursday morning they went over this again, the Professor took the angles and after luncheon we set out on the return journey, before sunset reaching a *tambo* an hour beyond Guarina.

Now on the way home, both arriero and the mules proceeded with much greater alacrity. The following morning was cold and misty when we set out a few minutes past six at hardly daybreak. An hour's walk in the fresh cold air for me was a good beginning. At noon we halted at Machacamarca as on the way out, soon after which the arriero inquired if I would like to reach La Paz that evening. I had expected to go only as far as Cocuta, but being now in better condition, somewhat inured to the saddle, the attractions of a comfortable bed instead of an adobe bench were sufficient, even if we were too late for dinner, to make me say yes. Then, indeed, the arriero showed what he and the animals could do when he felt disposed. No more was said about the wearied mules. He whacked those beasts so that he made them trot a large part of the time in spite of their heavy burdens. I was soon quite worn out striking my own mule with the ends of my bridle, so he beat that as well.

Though at first a little fun, it soon became monotonous. After a good whack the animals would trot for a considerable distance leaving the arriero far in the rear, though he trotted, too. When the beasts had settled again into a walk, the arriero would overtake us and give them another whack all around. Thus we went on the whole afternoon. The other men were left far behind, making it rather dull for me with no one to speak to; but in my later journeys alone, I became accustomed to travelling with a native only, and found that solitude has its own peculiar charm.

At Cocuta, the mules, evidently thinking they had done enough for one day, were determined to enter the enclosure. When the gate was shut they still refused to proceed, one running one way and one another, so that the arriero, who had already dismissed the indian to his home on the puna, was quite frantic. The delay gave the men behind opportunity to overtake us, and without dismounting I again rode on. At first the arriero had promised that we should arrive in La Paz at ten in the evening, later he said nine, and finally seven. On reaching Cocuta at half past three, I began to think we might arrive in time for dinner, and so we did. One reason for the guide's willingness to push on so rapidly was his eagerness to be in La Paz on Saturday; for that was a Saint's day on which there would be a great indian festival. A reason for wishing to arrive *early* was that the part of the puna between Cocuta and the edge of the alto, being uninhabited, was considered rather dangerous after nightfall. Robberies and even murders used occasionally to occur in this section. We were therefore well pleased to reach the ancient league post about sunset while the afternoon light was still giving delicate tints to the cloud-crested mountains. Illimani, in front, was especially magnificent, much more imposing than when seen from the city below.

Almost paralysed with long riding, I was glad of the opportunity to walk most of the way down into the valley, taking the arm of Lauber, who had been especially kind and attentive throughout the journey, helping me with my boots and

leggings and often inquiring if he could do anything for me.

That we reached the city after dark was a cause of thankfulness, since I at least was full of mortification over our ignominious defeat, though regarding it as temporary and determined to make another and a genuine attack upon the mountain. The arriero had been specific in demanding the same pay if he arrived that night as if we were on the road a day longer. To this I assented so promptly that he was fearful I had not understood him; but he spoke Spanish with unusual distinctness, and I could always tell what he meant, even though I did not understand all the words; while he was intelligent enough to comprehend my conversational efforts in Spanish better than anyone else, frequently interpreting to the officer any directions that I gave him.

In La Paz a new complication presented itself. During our absence the port of Mollendo had been closed on account of the breaking out there of the bubonic plague. On hearing this I said to the Professor, "Now, you see, you might have stayed at the mountain just as well as not. It is impossible to get out and you can go back with me for another try." "No, indeed," he responded. "I am going home by way of Oruro and Antofagasta." This was a longer and much more expensive route, two days by diligence, three by rail, and four additional on the steamer. It was because I already had the return transportation to New York that I had consented to give this for his brief services. I therefore demurred saying that I had made no such agreement. I would give him return tickets by the way he came. It wasn't my fault if the port was closed. The Professor, however, insisted that I agreed to pay his expenses and pay them I must if he had to go back by way of Buenos Aires and London. The situation was so unpleasant that I at length consented to his demands. Then the guides began to be disagreeable. They were alarmed lest they should be shut in for the whole winter. In vain did I assure them that it was impossible for all the ports to be closed. Nothing would

satisfy them except to return with the Professor, and after much useless discussion I was finally glad on the following Thursday, August 20, to see them all off and to begin making plans on my own account, albeit as a forlorn hope, for another attempt on the mountain.

In the meantime I had not delayed making a second appeal to the government for soldiers, as M—— had urged, calling upon the Acting President, the Secretary of War, and the Prefect; but my efforts were futile, as before. Had the indians attacked or even threatened us? they inquired. If so we should surely be protected; but they could not give us soldiers to act as porters or because Maquignaz was afraid. The Prefect promised to furnish police from Achacachi to compel the indians to fulfil their contract, but M—— declared that this was quite useless. Probably the indians could not be found and the local police would sympathise with them if they were.

A Bolivian gentleman who, as he spoke English very well, had chanced one day to be called in as interpreter, Señor Juan María Zalles, now came to my relief. Mr. Zalles was the proprietor of the *finca* above Umapusa, with the village where the indians were sorting potatoes, and was the owner of the top and a large part of the side of the mountain including the little green lake and the valley where we had encamped. This gentleman cordially offered me all the assistance in his power. He declared that his indians would be glad to serve as porters and sent to his *finca*, Chiarhuyo, for a cholo to come to La Paz, who he thought would be willing and competent to conduct me to the top of the mountain.

Next I set about finding a civilised person to accompany me on the journey and assist in the ascent. This was a difficult problem. I had brought a letter from one of my fellow travellers to Señor Don Felipe Pardo, now the Peruvian Minister to the United States, son and brother of former Presidents of Peru. Unfortunately, on my arrival in La Paz, this gentleman was absent from the city. Had it been

otherwise the whole story of my expedition would have been different, as the next year's adventure proved. But in 1903 *everything* went wrong after I landed at Mollendo. The fates were certainly against me.

Mr. Pardo, who had now returned from a journey, said that he personally was not interested in mountain climbing, but that he had a friend who was, an Austrian, Mr. Victor Sintich, whom he would send to me. This gentleman called the same day and was enthusiastic over the matter. He had, he said, been most anxious to go with me on my first attempt, but instead of calling to offer his services he had sat in the next block waiting for some one to send *me* to him. He declared that there was no trouble with the indians if they were properly managed (which he proved the next year), adding that if I had had one *man* with me he would have made those indians go up. Mr. Sintich still desired to accompany me, but in the interim had made arrangements for a business trip which finally prevented his doing so. An American was discovered who spoke Spanish fluently and was at leisure; but he was no athlete and, it was evident, had no inclination for the task. He wished, therefore, to be paid for his services which I was unable to do at the moment.

On the 26th of August the cholo arrived from the *finca*. After a good deal of conversation in several interviews, we signed a contract by which I was to pay the cholo fifty *bolivians* if he took me to the edge of the glacier, fifty more if he should conduct me to the foot of the final peak. This last, he said, was very steep but possibly might be surmounted. The bargaining for that I concluded to leave until we reached the spot. The cholo was to provide indians to serve as porters to the glacier. He guaranteed then with his brother to take me to a point previously reached, within a few hundred feet of the summit, to the very top if practicable.

A snow storm having occurred just prior to these negotiations, my prospective guide asserted that it would be two weeks before the cliffs would be sufficiently free from snow

for the indian porters to go up. I, however, declared that I should set out from La Paz the following Wednesday, September 2, as I believed the mountain would be in condition sooner. With typical politeness the man rejoined that if the lady *said* it would be all right, of course it would be, but he didn't think so. Before Wednesday came, there was another storm, heavier than the preceding, and then I knew that I must indeed wait some days longer.

It presently became evident that the American was not to be depended upon. While deploring this to my Greek friends, Mr. and Mrs. Armas, and wondering whither I should turn for help, the gentleman remarked, "I don't see but that you will have to go alone." "Alone!" I cried, in amazement and some horror, "you don't mean that I should go all alone with an arriero ninety miles to the *finca* (where there was no really civilised person) and go up the mountain with indians and cholos only?" "Yes," he replied, "I do. I consider that it will be perfectly safe, and it is the only way you *can* go; for there is no one here to accompany you." The gentleman had resided in Bolivia four years and might be supposed to know, but this idea almost took my breath away.

The next morning I went to Mr. Calderón, the Minister with the American wife, and inquired what he thought. He replied that he believed I would be taking no risk whatever. Then I went to the American Minister, Mr. Sorsby, and inquired if he thought I should be safe in going alone with an arriero to Chiarhuyo and climbing the mountain with cholos and indians. "I think you are crazy," he replied. "You are desperate, and you will break your neck. Some one ought to stop you." "I can take care of my neck," I rejoined. "I am not asking you about that. What I want to know is whether I shall be safe so far as the natives are concerned." "Well, yes!" he replied, with some reluctance. "There is no danger to be feared from them." "Very well," I said, "that is all I want to know. I understand the mountain

climbing part better than you do and I have no notion of breaking my neck."

It is true that I should never have left New York with the idea of climbing Sorata in this fashion. Though possessed of considerable experience, I had not regarded myself as an independent climber, capable of leading the way over glaciers and up steep snow inclines or of directing novices in such enterprises. The idea of going with natives only at first had been startling, but being left alone and realising that there was no other way, having received the assurance, alike from foreigners and Bolivians, that I should be perfectly safe, I determined to do my best. My courage rose till I became quite enthusiastic over the prospect, resolving to make a good try for the yet untrodden summit and put to shame my former companions. I engaged a fatherly-looking arriero with a nice kind face, upon whom I felt I could rely until we reached the *finca*, when the cholo there would take charge.

With my courage my hopes had risen; the weather was the only draw-back. Several times the clouds gathered and snow fell, on the mountain range for several days. The whole puna was covered with snow, near the Cordillera to a depth of several feet. Avalanches were continually falling and mountain climbing was out of the question. It was now the middle of September and there was no prospect that conditions would improve; rather they would become worse, as the rainy season was approaching.

Who shall over-rule the decrees of fate? The year before the skies through June, July, and August were cloudless and the mountain was in splendid condition. The chief of the Geographical Bureau, Señor Manuel J. Ballivián, informed me that this year there had been no cessation of the rainy season which should have closed in May, but that a succession of storms at intervals of a week or two had kept the mountains continually in a dangerous state. Such a season had never before been experienced as the records kept for

twelve years bear witness. The best time during the whole period was the moment when we were at the foot of the mountain. With the co-operation of the indians, or with more time and enthusiasm on the part of my assistants, the success might easily have been ours which later weather conditions rendered impossible.

CHAPTER VII

LIFE IN LA PAZ IN 1903. TIAHUARNACO

THE weeks spent in waiting for good weather gave opportunity to observe something of the life and customs of this unique city. If I should relate *all* that I saw and learned on this and subsequent visits, the story of my adventures would lag; but I cannot forbear mention of a few matters, referring to other works on the subject those who wish further details.

The Bolivians are extremely courteous. My Greek friend, who had lived in many parts of the world including Paris, Constantinople, and several cities of the United States, said that the people were more polite, especially on the street, than those of any other country he had visited. I frequently saw men step from the narrow sidewalk into the street to allow a lady to pass. Many of the wealthy have been educated in Europe and speak French or German, a few also English.

Of especial interest, however, were the indians and cholos who together constitute three-quarters of the inhabitants of La Paz and give a picturesque novelty to the place. In going on errands about the town (I never had time for an aimless stroll), I found them of endless fascination, not, indeed, for their beauty, but for the strangeness of their personality and garb. Whether it was the indians carrying loads or driving herds of llamas, together apparently belonging to some remote patriarchal age, or women sitting in the squares, perhaps holding out *chupe* to an indian patron, or knitting as they preside over the sale of other eatables or of various wares, or cholos in gay attire, all attract eager attention if not admiration.

The indians are dark with straight black hair. Their heads they carefully cover, especially at night, with woollen

hood and hat of felt or straw, while their feet, whatever the degree of cold, are usually bare or protected with sandals merely. The men's trousers are nearly white or black according to whether they are worn right side out or wrong, as when at work they often wear the lining side out to keep the other clean. The peculiar trousers, broad at the pockets, coming but little below the knee, and slit up the back exposing white drawers underneath, were introduced by the Spaniards at the time of the Conquest when they were the mode, and forced upon the natives who have worn them ever since. When fully dressed the men wear a short jacket over a coarse white shirt, perhaps also a sash. Every indian as well as every gentleman possesses a poncho, a sort of blanket shawl, square or rectangular, with a slit in the middle through which goes the head. These serve as overcoat by day and as blanket at night, besides being employed in carrying burdens on the back.

The indian women wear plain full short skirts commonly showing bare feet below. Their waists are seldom visible, being concealed by one or two shawls. That these people are generally dirty looking is not strange, since they sleep on the floor and wear the same garments day and night for an indefinite period. A bath is an unknown luxury which they would doubtless regard rather as a punishment. Without conveniences, water even being scarce, such a procedure is absolutely unthought of.

It is hardly to be wondered at that the Aymará indians are a rather surly looking lot, since they have been robbed of their lands and their more sympathetic rulers, and made subject to an alien race by whom in earlier days they were ill-treated and oppressed far more than now. Yet as a rule they are peaceable and quiet except in the rare periods of insurrection when their latent savagery is liable to break forth. The sections of country in which they dwell are ordinarily safer than the United States, which has a larger percentage of murders than any other civilised country upon the globe. Thus the kind solicitude of my friends in re-

gard to my venturing alone in the wilds of Peru and Bolivia is entirely without warrant.

While the indians occupy a subordinate position, most of them attached to the land after the manner of serfs, if intelligent and ambitious they may better their condition. They may attend the public schools, wherever these are provided, and by learning to read and write they may become citizens with voting privileges, if they earn \$80 a year in any other manner than as servants. If they also make money they may attain a good social position. There is no such prejudice against them as with us against negroes, though doubtless some of the old Spanish families pride themselves on their pure Castilian blood. A Minister of one of the Departments of Government, I was told, was a full blooded indian.

The cholos form a sort of middle class, the men dressing in the every-day garb of white men generally, but the women are as noticeable as the indians, having a distinctive style of their own. At times they may go barefoot, though on occasion they wear fine lisle-thread stockings with high heeled French shoes. Their skirts, of which they have a superfluity, barely reach their ankles. Apparently they wear their entire wardrobe at once, at least they sometimes have on five or six woollen petticoats at a time, the uppermost standing out to such a degree that one might suppose there was crinoline beneath. The bright coloured skirts, blue, green, yellow, magenta, etc., are so arranged that two or three will show, one a little below another, giving thus a novel if not attractive appearance. These women always wear shawls of varied and brilliant colours, of which the shops have great store. They buy and wear as many as they can afford, often four at a time. The cholas spend most of their money on dress, silk skirts and rich jewellery, although they may sleep on the floor. They often wear jaunty headgear, but commonly a straw or grey felt hat with narrow rim, much like a derby. The combination is rather peculiar, but certainly the chola adds to the gay appearance of the city.

The ladies of high degree are in striking contrast. In the morning when they go to market or at any hour on their way to church, they are robed entirely in black. A shawl fastened over their heads in a very prim and precise manner comes down well over the black skirt, a convenient fashion, sometimes concealing, it is said, a multitude of sins, either of apparel or of hair dressing. At other times, when making afternoon calls or attending festivities of any kind, the ladies are gowned and hatted according to the latest Paris fashions, displaying a fondness for bright colours and extremes of the mode. The gentlemen are in a high degree punctilious as to correct dress, appropriate to the hour of the day and to the function; much more so than is general with us.

As housekeeping matters are generally interesting to ladies, I made inquiries on the subject of Mrs. Thompson and Mrs. Calderón. Speaking of Mrs. Thompson reminds me that people, noncatholics, who have wished to get married here have had a hard time. The rules of the Roman Catholic Church allow of the marriage by Catholic priests of those outside the fold, but it is not done in Bolivia. No civil marriage was allowed. This made a good deal of trouble for the Thompsons, who finally sailed over to Puno in Peru to get the knot tied, as one or two other couples have done since. The Thompsons' marriage was said to be the first civil ceremony in the neighbouring Republic. Catholics also have trouble in this regard, though not for the same reason. Considerable fees are charged for marriage, christening, and burial services, enough it is said to make the priests comparatively rich. The last two rites are deemed essential lest dire results follow in another world, but the ceremony of marriage may be dispensed with. Partly as a result of this view the baptisms for two months at the cathedral showed forty per cent. of the births illegitimate, while at Sucre two years earlier the municipal reports showed seventy per cent. This condition exists largely among the cholas. Illegitimacy is so common as to be no especial stain, although un-

less formally acknowledged the children have no legal rights in inheritance. The state of public opinion on this question, at least among the cholos, may be evident from the fact that a Canadian lady, Mrs. Baker, was asked by a cholo woman in reference to her two small children, first if they were hers, second if they were her husband's, and third if she and Mr. Baker were married.

To return to the subject of housekeeping.—Rents in La Paz are called high for a place of its size, a furnished apartment of five rooms being considered cheap at \$60 a month. Other expenses are small.

Families of position employ from five to eight servants: a cook at from two to eight dollars a month, a dining room boy at ten, a laundress at three and a half, a maid for chamber work, and a *pongo*. These with the exception of the *pongo* are cholos, who as a rule go home to sleep at night. They work hard, but are slow, and rather dull about learning; yet some are intelligent and there must be many good cooks, as the food served in private houses is generally excellent. The *pongo* is an indian from the country, who brings fresh water from the street corner and carries away the slops and refuse, as few houses have running water and there is no sewerage. He scrubs floors, and acts as a scullion in the kitchen, peeling potatoes, cleaning knives, etc. He sleeps in his poncho inside the door of the patio which at night is fastened. For the *pongo* the house-holder usually pays \$50 a year to the proprietor of a *finca* or farm some miles from the city. Every fortnight a fresh indian is sent to take the place of the former, each bringing with him a new supply of *taquia*. Of course you do not know what that is, so I will explain.

As previously remarked, Bolivia is a peculiar country in more ways than one. There are practically no trees of natural growth on the great plateau or elsewhere, save in a few cañons, until you pass over to the east side of the Andes where the lower slopes are thickly wooded. This, however, is a distant region; not in miles, but in cost of transportation. It is cheaper to bring wood for furniture and for house in-

teriors from Oregon than from Eastern Bolivia up over the mountain range. Naturally there is no wood to burn except small sticks from bushes which in some places in the country serve the indians for cooking purposes. Also there appears to be little if any coal. It is said that the coal strata have been washed away. There is talk of a recent discovery near Lake Titicaca, but none is available. Imported coal is naturally very expensive, \$30 a ton. Oil? This, too, has been discovered on the shore of the Lake, but practically all refined oil is imported and dear, about forty cents a gallon. It is therefore used only for illumination, or by foreigners for heating their dwellings, as Americans especially do not enjoy sitting without a fire in a room where the temperature varies from 44° to 60° Fah., (as it was in my room even with a stove burning). This the natives do not seem to mind, so their houses are never heated. Neither do they use oil for cooking, nor yet gas, nor electricity. What then? If you visit somebody's kitchen you may see the fuel in a wooden box or a bag. What does it look like? I should say, pecan nuts, but a trifle larger, darker, and more shiny. Yet it is not nuts. O no! but a much more shocking substance: viz, the dung of llamas, which when hard and dry is gathered up on the plains in great quantities and brought into the city by the *pongos* for fuel. The term *taquia* by which it is called makes it seem rather less objectionable than our expression. Three donkey loads will serve a family for a fortnight.

The cost of food like the wages of servants was very small; meat was astonishingly cheap, 50 cents buying 12½ pounds. A leg of mutton might cost 12 cents, a large roast of beef 30 cents. Vegetables in considerable variety and fruit of many kinds are also cheap, save chirimoias: custard apples they are sometimes called, the size of an orange or larger, white inside with black seeds and a coarse green skin, when in perfection a delicious edible. These may cost from two to ten cents each. The fruits and vegetables do not grow near La Paz, but are brought up from the *yungas* or warm



Market Place, La Paz



Street near market, La Paz

And

valleys at the east. For a large bunch of sweet peas I paid five cents; other flowers are in proportion, with roses slightly higher.

The market and adjacent streets greatly interest the stranger, especially on Sunday when there is the largest assortment of goods and the most purchasers. Almost anything may be found here; dry goods, particularly clothing and knit articles, dolls and other toys, shoes, etc., as well as meat, vegetables, grains, fruits, and coca leaves. Women, old and young, many with small children or babies, sell most of the goods, though men serve in a few departments. There is a motley crowd in motley raiment, indians and cholos in great numbers, with a sprinkling of ladies and gentlemen. The regular marketing is ordinarily done by the cook. The Spanish Americans eat a great deal of meat with comparatively few vegetables, while sweets on the order of our pies or puddings are practically unknown. At banquets all manner of little cakes of excellent quality are served and a variety of ices.

Certain household conveniences to which we are accustomed are lacking. I heard some indignation expressed because a writer had published the statement that there were no bath tubs in La Paz. While this was not strictly true, I was unable to discover that any one possessed a proper and well regulated bath room with hot and cold water. Very few houses had running water at all; if they did it was cold, and hot water must be brought by the pailful from the kitchen. In one house occupied by an Englishman, there was an arrangement of pipes connected with a small charcoal heater by which in the course of two hours the water for a bath might be heated, but even these rather primitive facilities were rare. Doubtless some of the people bathe, but South Americans generally can hardly be said to have the habit as practised here and in England, which is scarcely to be wondered at under present conditions. There has been a great change in this respect in the United States within the last fifty years.

Of amusements in La Paz there is a dearth. The theatre is occasionally opened for some stray company, more rarely there is a horse race or a bull fight. There is considerable social life, formal calls, dinners, especially among the diplomats, and evening parties with dancing. Horseback riding is a favourite diversion. All know how to ride as that is or was the most common mode of travel. In 1903 there were no automobiles in La Paz and few carriages, most of these disreputable in appearance; the stage coaches looked as if they had been bought of Buffalo Bill twenty years earlier. Holes in the floor, holes in the sides, ropes and patches; they seemed unable to hold together, much less to carry anything, but they did. The horses, including mules, of all sizes and shapes, four, six, or eight to each coach, compared well with the vehicles.

As the city is built on uncommonly steep slopes on both sides of a narrow stream, it is no place for pleasure driving, but the walking is fine. I took much satisfaction in going up the cross streets which reminded me of some of those in my native city, Providence, where one is so steep that there is a fence across the top while another ends in some steps. In La Paz, many groan over the hills and puff and pant much more than they would at sea level. On account of the incline the side-walks are partly paved with cobble stones, squares of these alternating, checkerboard fashion, with squares of stone flagging. Even so, slips are common and falls occasional; wherefore, many persons take to the middle of the street which is all cobble stones, a safe enough proceeding, though you may have to turn aside for a drove of llamas, a few horsemen, or a troop of donkeys. Llamas in great numbers frequently crowd the ways; every morning thirty or more came into the rear patio of the hotel bringing ice from a mountain glacier (the price is independent of the severity of the winter there), in the evening, another set brought fuel gathered on the plain.

The streets of the city seemed remarkably clean, being swept about six every morning, by the men or women who

occupy the ground floor of the houses, or by persons whom they employ. The brooms were small but effectively wielded.

Good shops of all sorts are numerous, the largest dry goods establishment being an English firm, Harries and Thompson, with four separate stores which then paid, I was told, one-half the duties on imports to the city, £15,000 sterling a month. These stores are open from seven in the morning until quarter past five save for an hour between eleven and twelve when they are closed for breakfast. Families generally take this meal between eleven and one, tea at three or four, and dinner about seven. One has coffee in the morning in his room at whatever hour he likes. This I enjoyed more than any of my other meals. The rolls, quite large and flat, had a fine thick brittle crust, the fresh butter was excellent, and the coffee of a most agreeable flavour. When I had once convinced the chamber boy (for they never have hotel maids in Peru or Bolivia) that the milk must be boiling hot and plenty of it, for the coffee was very strong and I drank it two-thirds milk, I took great satisfaction in my morning meal. It is a mistake to imagine that because one has always drunk Java coffee he must always continue to do so. Much South American coffee has a finer flavour. A gentleman who had been to the interior declared that he never before knew what coffee was. The very choicest, however, is reserved for home consumption, a contrast to the habit of those farmers who sell all the best and eat the poorest.

Importations from the United States, though few, were increasing. In 1903, a gentleman said he had seen but two travelling men from this country within several years. Goods were imported mainly by the Germans and English. At that date there was not a single American woman resident in La Paz except Mrs. Calderón, and few men, these mostly miners; it is altogether different now.

Foreigners who visit La Paz generally purchase as a souvenir a rug or two of the vicuña fur, peculiar to the high

plateau region and here of better quality than those to be found in most parts of Peru. The animals, the vicuñas, the size of a small deer, have skins of a beautiful tawny shade, which are the lightest and warmest of furs with the exception of chinchilla. They live in large numbers at or above 14,000 feet on the ridges and slopes of the Andes. It is a pity that so far it has proved impossible to domesticate the animals, though I did see a tame one in a patio in La Paz. In the same districts as the vicuñas live the alpacas, found in no other part of the world. All genuine alpaca, therefore, comes from this region. The animals have been more or less domesticated and at one time much of their wool was exported, but lately very little. Exquisite white rugs are made from certain parts of their skins, but the rugs are more rarely seen than those of the vicuña. Being twice as heavy, for some purposes they are less desirable. Chinchilla, formerly numerous, are now rare and their fur is more expensive.

Bolivia is a fine country for sheep and cattle. When meat becomes too costly to eat here we have only to migrate thither where a whole sheep may be bought for a dollar.

I paid a visit to the Municipal Museum which contains specimens of the flora, fauna, and mineral wealth of the country, aboriginal mummies found on the plateaus, ancient sculptures, pottery and other paraphernalia of the Incas, all having some interest for the intelligent traveller. I called at the woman's hospital where the patients were comfortably disposed in iron beds in a long neat looking ward. Some persons would be interested in visiting the many churches in the city, the convents, the universities, the manual training school, and the modern penitentiary which contains, among other departments, workshops for both men and women.

On my first visit to La Paz I found time for two long walks only; one, partly for practice in climbing, up the steep wall of the cañon to a little chapel at the top, 1,000 feet above. Though from a distance the wall looks perpendicular and is nearly so in places, it is carved into jagged irregular

slopes which present a field for interesting and not difficult ascents. A great country this for climbing; great, I mean, in opportunity, as yet undeveloped. The splendid exercise, the fine air, the ever varying outlook should be sufficient compensation; in addition one reaps the reward of vigorous health, and renewal of youth, if the recreation is pursued wisely.

One day I walked down the valley hoping to get to a point where I could see out in that direction; in this I was disappointed, the walls twisting around in front in tantalising fashion, but I still had my reward in admiring along the way the curious shapes of the walls and the bright variegated colours of the cliffs, with the glorious Illimani there above and the gold bearing stream at the bottom of the cañon below.

In by-gone ages, even before the arrival of the Spaniards in the 16th century, this little river was the scene of placer mining. How much gold is now concealed forever by the houses and streets of the city, who can tell? Once upon a time an indian picked up a big chunk of gold worth over \$10,000 near the middle of the present city. Not many years ago the Chilian minister found a nugget worth \$5,000, a few miles down the stream. No wonder they called it Chuqueyapu, river of gold.

On Sunday, August 30, occurred the opening of Congress, which should have taken place some time earlier, but had been postponed on account of the non-arrival of members enough to form a quorum. While La Paz is the chief city of Bolivia and has for many years been the seat of government, Sucre is still called the capital. In 1899, a revolution occurred through the desire of the old Spanish conservatives to bring the government back again to Sucre, an interior town nine days' ride from La Paz, a century or two behind the times. The liberals would not consent to the order which would have accomplished this, and under General Pando a battle was fought which decided, no doubt for all time, that the progressive party should remain in the ascendancy and

La Paz continue the capital *de facto*. General Pando then became President. That people in cities so remote from each other and so far removed from the outside world should have preserved through several centuries so high a degree of culture and civilisation is one of the remarkable facts of history.

In the period of delay for conditions favourable to mountain climbing, the ruins of Tiahuanaco were an attraction. Easy of access, lying close to the railway, a few miles from Lake Titicaca, these relics of an ancient pre-historic civilisation go back to a legendary period before the time of the Incas; for when the Spaniards invaded the country they already existed as strange monuments of a remote antiquity. In an attempt to unravel the mystery of their origin, still a matter of conjecture, M. Georges Courty, from the Museum in Paris, was, in September, 1908, engaged in making excavations, the Bolivian government furnishing twenty-five men for this purpose for a period of forty days. At the railway station I procured accommodations, not luxurious in character, but better than at Umapusa. Sleeping on a brick floor was no novelty, my first experience of this sort, years ago in Greece, having been practically renewed on the adobe beds of Bolivian *tambos*, as hard as a floor although elevated. With plenty of blankets I slept fairly well, with some twisting and turnings. M. Courty for his longer stay was no better provided. The family of the station agent, however, consisting of his wife and two children, possessed beds for themselves, perhaps also for an army officer at that time their guest.

A half hour before the dinner which was served at the hour of seven, M. Courty came to me with the inquiry if I would like a *cockle*. Having no idea what a *cockle* might be, but desiring to become acquainted with all Bolivian customs and dishes, I replied "Yes." A tray was soon brought, with small tumblers containing a dark liquid which proved to be a mild and harmless cocktail, my first experience of the beverage, though of course the name was familiar; I had not expected to hear it in that remote region.

In spite of rather primitive surroundings, we had a formal dinner of six courses, sitting an hour and a half at the table. A small indian brought in the food and removed the plates, while the lady went to a side table to serve the different viands. The meal began with vermicelli soup, which was followed by a vegetable similar to squash, then by fried rice, in the manner of fried mush; next came mutton with a green salad and bits of raw tomato, later canned peaches, the meal concluding with black coffee.

The afternoon had already been spent in visiting the site of the ruins which are regarded by many as the most ancient, and as indicating the highest degree of civilisation, of any existing in the Western hemisphere. A quarter of a mile from the station, conspicuous on the bleak brown plain, cheerless under the wintry sky, centuries long have been standing great granite blocks eight or ten feet high, about fifteen feet apart, which once formed part of a wall enclosing a rectangular space 388 by 445 feet. Some of these slabs have fallen, while others have disappeared. It is believed that the spaces between were once filled in by rough stone, a wall about eight feet high thus forming what may have been a sacred enclosure in which a temple stood, though of this there are no positive remains.

A massive monolithic gateway, now broken and evidently not in its original position, may once have afforded entrance to this enclosure. This gateway is the most interesting and remarkable of the existing ruins, having on one face a frieze containing small niches, with one large niche on each side of the doorway below, and on the other face, above the doorway, four rows of sculpture in low relief, somewhat after the Egyptian style, with a figure in high relief in the centre. The three upper rows seem to portray human figures, although all have wings, while in the central row they have also the heads of condors; but in the upper and lower rows, they have human heads wearing crowns; all hold sceptres in the hand, all are half kneeling as if in adoration of the central figure, which in high relief is still more conventional in aspect, dec-

orations both of tiger and of condor heads being added around the head and elsewhere. The interpretation of the figures is uncertain, but one supposition is that conquered chieftains are here paying tribute to the great ruler of Tiahuarnaco. A resemblance has been noted between these sculptures and those of Mexico and Central America, indicating some connexion or relationship between the people, but it is said that nothing of the sort has been found elsewhere within the ancient empire of the Incas.

A notable statue stood within this enclosure, while two others covered with hieroglyphics lay on the ground beyond the railroad track. Still others had been removed to decorate the church and plaza of the modern village of Tiahuarnaco, whither also had been carried many beautiful cut stones. The church is largely constructed of these; many have been used in ordinary buildings and for paving courts. As has happened all over the world, ancient ruins have been a quarry for the erection of more modern buildings, other villages and churches of the *puna* and even the cathedral of La Paz containing material of admirable workmanship, transported from this place. Mr. E. G. Squier states that in no part of the world has he seen stones cut with such precision and accuracy as in Peru and Tiahuarnaco.

In addition to a number of shapeless hillocks, there seem to be traces of five distinct structures, one, a great terraced mound called the fortress, which may have had a temple or palace at the summit. Much digging has been done all about and destruction wrought, not only by archæologists and by those who wished blocks for building, but also by treasure seekers who have hoped to find hidden gold. Any one now making archæological research in any section is believed to be investigating for a more mercenary purpose. The centre of the great mound is hollow with a small pond of water at the bottom; on the outside M. Courty had brought to light a heavy stone wall with a drain leading above and below. Many pieces of ancient pottery have been found, a few of which I procured, with other articles of interest.



Tiahuanaco, Ancient Statue, M. Courty



Tiahuanaco, Sacred Enclosure

1700

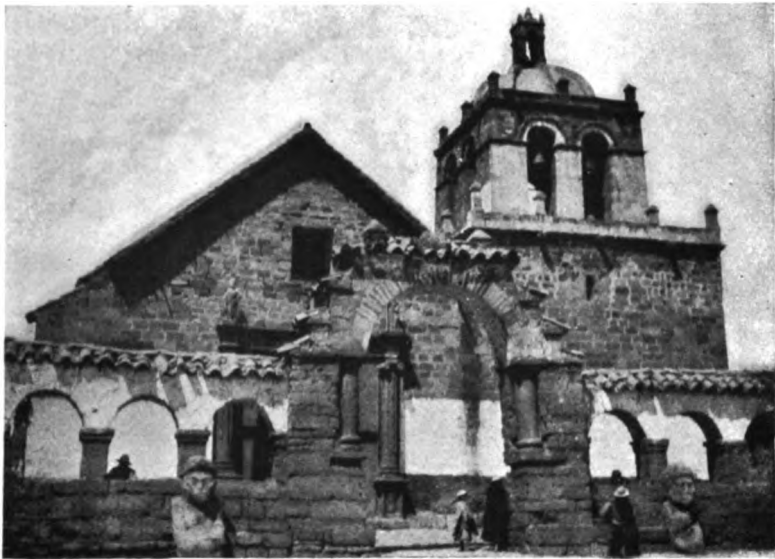
The Sunday of my visit chanced to be a special holy day, though the religious services seemed of less than secondary importance. In the afternoon we went over to the plaza of the neighbouring village to see what was going on. In front of the church are ancient statues, long since transported from their original site. Beggars in Bolivia are less numerous than in some countries of Europe or even than in New York City, but one ragged creature here I invited to be included in my photograph of the church. The festivities of the afternoon embraced several sets of performers; some in bright-coloured ponchos rode madly about on donkeys; others marched in groups of a dozen, wearing hats elaborately decorated with feathers and playing on pipes and drums. A dozen or more were richly dressed in bright coloured garments, red, blue, green, or pink, of velvet or plush embroidered with gold and silver. These persons wore masks, black, white, or yellow, and head dresses of ostrich feathers. One of these suits, I was told, would cost about \$200 gold. Several men were dressed as devils with horns and tails, a few represented animals, as a green turtle. A small boy having a sheep's head was clad in a sheepskin with red and yellow ornaments. One set of men made a great deal of noise with wooden rattles. A band with wind instruments played sadly out of tune. A few men carried whips, which they cracked at the others. All seemed jovial and good natured. Some of them bowed to us. One chases a woman. Two pretend to fight, one with a whip, the other with a knife. Such festivals usually continue several days, with drunkenness as a characteristic feature.

In the town of Sorata at this same period occurs yearly a much more elaborate festival continuing four or five days. A gentleman who had witnessed this celebration described to me the gorgeous head dresses of feathers, wonderful fans which could not be bought at \$75 apiece, and the extraordinary representations by the indians of animals, lions, apes, monkeys, a condor, etc. The indians engaged in comical antics and dances, up to the church door. After spending

ten minutes inside they would come forth to resume their sport and continue their drunkenness. A band of ten drums and Pandean pipes played the same tune all day and all night. One company of five or six persons was clothed in tiger skins. On one of the days a procession of the gentry of the town attended church service in magnificent clothing which could not be surpassed (I was told) in any civilised court of the world. The men wore wigs like ancient courtiers, and velvet coats richly embroidered with gold. They were masked mostly as coloured men and carried rattles a foot long, keeping time to the music which was supplied by two cornets, a bassoon, and drums.

On entering church for Mass the masks were removed, but no other change was made by those representing animals, or by others. On emerging from the church they were followed by a sacred procession: the patron saint, Muestro Señor de la Columna, carried on an altar on the shoulders of men, the priest in front with his Mass book. At each corner of the plaza they paused, all fell on their knees while the priest read, then the bands struck up and they marched on to the next corner.

The dancers roamed the street all night. On September 14, a great feast day, orgies were still going on at eleven o'clock at night, while a horrible din awakened the people at seven the next morning. More processions occurred, the saint again taking an airing; paper flowers and large tallow candles were brought to the church as offerings. On the last day, September 16, a representation of the execution of the Inca, Atahualpa, occurred in the plaza. Pizarro was represented by an indian dressed as a soldier. When Atahualpa was shot by his order, the women howled, mourning for him in realistic manner. The September festival at Sorata from the 12th to the 16th is the most elaborate of any in this region. It is evident that the civilisation and Christianity of these indians does not go very deep. They are little altered from four centuries ago, except probably for the worse, imitating the vices more than the virtues of their con-



Church, Tiahuanaco



Indians with masks, Saint's Day, Tiahuanaco

1140 U

querors, as happens generally. Education is sadly needed, but with the absence of material development and the small revenue it is hardly surprising that so little has been done in this direction. The old idea of keeping the lower classes in a state of ignorance no doubt formerly prevailed here as in other parts of the world, but the new one is growing that for the full development of a country there must be general education, even of the labourers.

CHAPTER VIII

AREQUIPA AND EL MISTI

It was with feelings of keen regret that on the 18th of September I departed from Bolivia. I had been strongly tempted to remain until the following season for another try upon the mountain, confident that with the assistance of Mr. Sintich or with the indians alone, I could then get somewhere *near* the summit, if not to the top of Illampu. Business obligations, however, caused me to decide upon the return. After some hesitation as to following the route of the others to Oruro and Antofagasta, I concluded to go down to Arequipa, believing that if the port of Mollendo was still closed, there must be some other outlet for the people of that section.

At this city I was delighted to find at the Hotel Central a party of American gentlemen who had just come in by way of Quilca; for thus I learned that there really was a way out. The leader's story, however, was not reassuring. He declared that they had ridden 102 miles across an absolute desert in the unprecedented time of twenty-six hours; that there was no place to pause *en route*, but they had slept, unsheltered, for a brief period; that there was danger of being lost on the trackless desert and of perishing from hunger and thirst, of being overwhelmed by sand storms, of freezing by night and roasting by day; in short, he would strongly advise me to return to La Paz, for the two days' stagecoach ride to Oruro, the three days by rail to Antofagasta, and the four days additional on the steamer, with all the extra time and expense involved, rather than attempt this terrible journey. On my assuring the gentleman that if his feat were so extraordinary, there was the more reason for my duplicating it, since, not having climbed my mountain, I was eager for adventures, he declared this quite useless from a business point of view, as

his companion had engaged to write up the trip for *Harper's Magazine* and his article was already under way.

Nevertheless, I maintained my resolution to undertake the journey and later was informed by others that the distance was no more than seventy miles, that it would be quite safe to go with an arriero, and that a mule could carry my large trunk if it did not weigh more than 250 pounds.

Not having climbed El Misti on the way in, as originally planned, I had determined to do this on the way out; a poor alternative to the ascent of Mt. Sorata, but the best that lay in my power. Accordingly it was an especial pleasure to receive from Mrs. Bailey at the Harvard Observatory an invitation to come up there for a visit. The hospitality of the Baileys to stray Americans was always generous and highly appreciated by the recipients; it was agreeable indeed to enter once more a delightful American home. From the broad veranda on two sides of the second story, the view, including the plain, city, and mountains, with the graceful cone of El Misti close at hand, is of varied and endless charm. After long shivering in cold houses on the Bolivian Plateau, a bright wood fire, here by day unnecessary, in the evening seemed a luxury. A *wood* fire I said, though not precisely what one might infer from the name. The material is called *yareta*, a substance in no wise resembling the Bolivian fuel *taquia*, but a form of vegetation growing in solid dome-like masses, which have much the appearance of moss. These masses average a foot or more in diameter, though many are considerably larger. As they contain a good deal of resin, when chopped into suitable pieces, they make an excellent fire. This plant grows chiefly at an altitude of from 15,000 to 16,000 feet, with a slightly wider range. Trees in this region are scarce, though between 14,000 and 15,000 feet there are small stunted specimens, a few feet high. These, with shrubs, serve the people of Arequipa for the little fuel they need for cooking.

As I was anxious to ascend El Misti without delay that I might be ready, if possible, to take the next steamer north,

a native was at once summoned, who engaged to accompany me to the summit and to provide the mules needful for the purpose.

The ascent of a mountain with an elevation above 19,000 feet is ordinarily an undertaking of serious difficulty. The idea of riding to such a height seems almost preposterous. A distinguished writer and mountain-climber has stated that 16,000 or 17,000 feet is the greatest altitude which may be attained by means of saddle animals, being evidently unaware of the fact that for a number of years the summit of El Misti, 19,200 feet, has been so reached. This mountain, therefore, affords exceptional opportunity to those persons who desire to climb only so far as they can ride. Probably nowhere else in the world can such an elevation be so easily attained. Any one may *undertake* the trip who can endure the fatigue of two long days' rides, yet not every one would reach the summit, as the rarefied atmosphere above has prostrated many strong men. For real pleasure I prefer to climb on foot lesser and more precipitous heights, yet seldom is it possible to ride so far above one's fellow creatures, to look down into the depths of a crater, and to survey so extensive a prospect; obviously the opportunity must be improved.

The guide, Francisco, was a muleteer who has made the ascent of El Misti oftener than any other person. During the ten years previous he had accompanied almost all of the parties undertaking the trip. At one time a visit to the summit was made every ten days, later once a month, by some member of the Observatory staff, so that Francisco had been up at least a hundred times. Manifestly he was a competent and reliable escort. But to go with Francisco alone would be undeniably dull. I was, therefore, well pleased when one of the Observatory gentlemen, though he had made the ascent a few weeks previous, kindly offered to accompany me. Seven was the appointed hour, but with the usual delays it was half past eight before we set out.

The way leads down into the town, where we purchase bread, oranges, and alfalfa, attracting much attention from



Harvard Observatory, Arequipa



El Misti, from Harvard Observatory

1890

the small boys; their elders also stop to gaze. Crossing the upper part of the city, we bear along the south side of the mountain towards the right of the picture. Although the grade is slight, save when crossing the numerous dry cañons and ridges, we proceed at a slow walk, the mules being heavily laden. The soil is as dry as possible, the vegetation scanty, some poor grass and a few bushes. Watching a high ridge in front of the great cone of the mountain our progress is almost imperceptible. At the last house in the suburbs we pause for a glass of *pisco*, a kind of native beer, but flatter. I took a photograph of the woman, though she turned away her face as if averse to the operation, as many of the natives are; the small boys, however, are only too eager to get into the fore-front of the pictures.

At half past twelve we halt for luncheon in a cañon where there was water for the animals, but none for us. We ride and ride, except for momentary pauses on the part of a mule evidently opposed to hill climbing. It is the middle of the afternoon before we top the great ridge which so long we have been impatiently approaching, and five o'clock when we reach the *Tambo del Alto de los Huesos*, the Inn of the Plateau of the Bones. In the early part of the day the sun had been uncomfortably warm, but as we rose higher and the sun went lower the temperature rapidly declined until here it was decidedly cold. We were now nearly half way around the mountain, at an elevation of 13,300 feet, on a lofty plateau between El Misti and Pichu-Pichu. Here passes the ancient highway from Arequipa to Cuzco and Bolivia, a route which we have so far followed, not by any means a carriage road; there are few in Peru, transportation aside from the railways being carried on, as we have seen in Bolivia, by means of horses, mules, donkeys, and llamas.

This *tambo* was an uncommonly poor one, so that we were thankful we were not obliged to remain over night. One finds here shelter only, supplying his own food. Water, even, he must bring from a spring quite a distance away. As we are rather late, Francisco does not attempt to water the ani-

mals, merely procuring some to carry up for us; so the poor beasts have none until we arrive in Arequipa the next evening. I enter the house to put on some extra clothing, after which we set out on the actual ascent, with our faces turned, for the first time, directly towards the mountain. Soon it grows dark, but the way is familiar to Francisco, to the mules, perhaps, as well; and about half past seven we arrive at the M. B. hut, thankful to reach a shelter. The hut has two compartments, one for the animals, the other for travellers as, at this altitude, 15,700 feet, both alike need protection from the cold. The fact that this height is about that of the summit of Mont Blanc gave the hut its name. This structure of stone, thatched with grass, which was erected by the Observatory people for their convenience in conducting meteorological observations on the top of the mountain, affords a welcome shelter to any who desire to visit the crater above.

We were cold and hungry, but hot lentil soup with crackers and chocolate soon made us comfortable, and we settled down for the night, having spread our sleeping bags on the dusty earth floor. Unfortunately I could not sleep and was presently afflicted with a slight headache. These symptoms of *soroche* I did not attribute exclusively to the altitude, as at other times at much greater heights I have not been so affected; the cause was no doubt the combination of altitude and rich soup, of which I had recklessly eaten two portions, believing that I could do so with impunity.

The cholos — another had joined us at the *tambo* — asserted that we must start for the summit at three and then we should not be back by four in the afternoon, if we descended into the crater as I had planned. This I did not believe and said so, which rather shocked the Observatory gentleman, as I obviously knew nothing about it; but the event proved my conviction correct.

The night seemed endless. After twisting and turning indefinitely, I ventured to inquire the time, to learn that it was twenty minutes past four, though the men had been certain



M. B. Hut, El Misti



Summit of El Misti, 19,200 feet

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1701

that they would awaken by three. After a very light breakfast of tea and crackers, we set out in the early dawn at twenty minutes of six. At once I felt better, my headache vanished, leaving me, however, rather feeble. The trail zigzagged up the mountain slope, the angle of which was the moderate one of 35° . The mules, panting heavily, advanced slowly on the long zigs and zags, halting for breath every twenty or thirty feet. This soon became fearfully monotonous, so I sought variety in walking; this, too, I found was no particular fun. Few can enjoy walking at 17,000 feet or upward, more especially with a great change of altitude in a few hours. My heart thumped vigorously; my breathing was deep and rapid. I was more than ready to stop whenever the mules did, but rejoiced that for one long zig I was able to keep up with them. I was glad when my self-imposed task was done, and at the next corner remounted my mule with pleasure, if not with alacrity. At such altitudes one does nothing with alacrity. That this slope is composed of coarse volcanic sand or gravel adds to the difficulty. It is remarkable that the vestige of a trail should remain after several years' disuse, when in the beginning it was merely scooped out with shovels. To leave this slope and pursue our way around the mountain side towards the northwest was an agreeable change. The incline of sand and gravel is broken by ridges of rugged lava rock, and detours are made to avoid impassable cliffs. Later came more zigzags, then a ravine to cross, a bad slope of pebbles, lastly an easy stretch to the summit, past a large patch of snow.

Though the way had seemed tedious, we arrived, well-pleased, at a quarter of ten; yet not so enthusiastic as the indians who constructed the path. These on reaching the summit, each in turn embraced the two Observatory gentlemen with them; then removing their hats, they knelt and kissed the cross. Next they drank the health of the gentlemen, after which they made a hole in the ground, placed therein some coca leaves, poured a libation of wine, and replaced the earth. The iron cross, about five feet high, is said

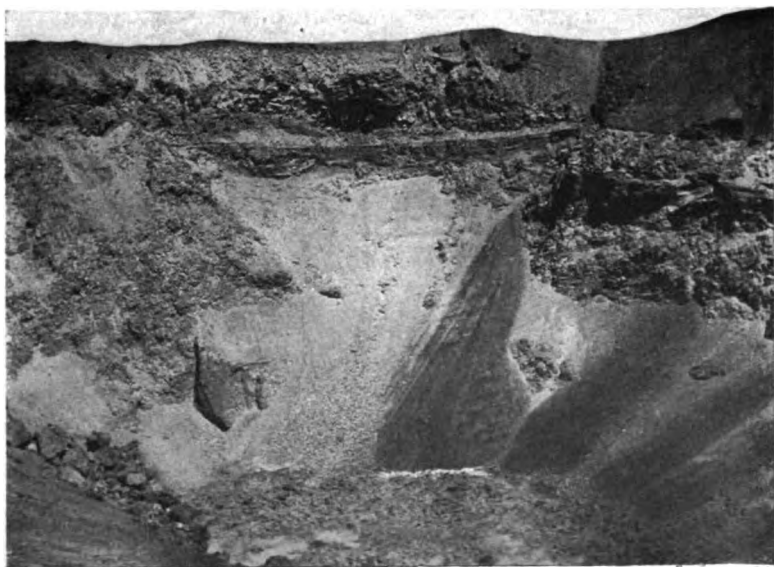
to have been erected here in 1784, after an earthquake which occurred May 13 of the same year.

From this lofty elevation, the prospect was extensive and interesting, though not so beautiful as others that I have beheld from lesser heights. The ocean, sometimes visible for a great distance along the coast, was hidden by the heavy bank of clouds which ordinarily hangs over it. The immense desert plateau far beneath was diversified by hills and mountains: Chachani, close at hand, somewhat higher than Misti, rather a range than a single peak, with considerable snow-fields on the top-most ridges; Pichu-Pichu, nearly opposite, a lower range tinged with the reddish yellow sands of the desert; Ubinas, another volcano in the far distance. A great white patch on the plain, glistening in the sun, was neither water nor snow, but a huge field of borax. At the foot of the cone lies the beautiful green valley of the Chili River and Arequipa.

More interesting by far than the distant prospect is the view of the crater on the brink of which we stood: a gulf half a mile in diameter and 800 feet deep, the enclosing wall vertical in many places at the top, though below sloping in towards the bottom. A black lower wall divides the basin into two parts, the old crater directly at our feet, the new, which was still smoking, on the farther side of the cross wall. It was an impressive sight, but after performing my immediate duty by taking a dozen photographs, I was glad to find refuge from the chilling wind in a hut six feet square and seven feet high erected by the Observatory people. After a moderate luncheon we made an observation with the hypsometer which I had brought. A small portion of snow being reduced to boiling water, its temperature was found to be $81^{\circ}.6$ Centigrade, equal to about 179° Fahrenheit. The pressure of the atmosphere thus indicated would give the approximate height of the mountain, which we already knew to be 19,200 feet. Another small structure on the summit had been erected to contain the various instruments with which observations



View from Summit of El Misti



New Crater, El Misti

May

formerly were made. The mean barometric pressure of the atmosphere at this height, 14.9 inches, is scarcely half what we have at sea level; such a diminution of the supply of oxygen would be fatal to a large number of people and is endured in comfort by few.

After an hour on the summit we prepared to descend into the depths, the cholo, Manuel, having come with us from the *Huesos tambo* to act as guide and assistant in this operation. Although he had previously accompanied Professor Bailey into the crater and was engaged by us for this purpose he seemed decidedly averse to going down, perhaps because there was considerable snow along the edge and on the slope within. However, he was persuaded to follow in the route which I selected.

Proceeding along the edge of the crater we had a steep incline, chiefly of hard snow, on the right and a vertical descent on the left. The jagged rim compels one to go warily. Presently we perceived a narrow snow ledge but a few feet below the top of the perpendicular wall. Descending to this with care, we crossed to a steep snow slope on which we slowly worked our way to the gravelly incline below. On this we ventured upon a sitting slide which we did not dare to make upon the smooth solid snow: the most convenient method of descent, but rather hard upon one's knickerbockers. Luckily mine, of duck canvas, were proof against the roughest usage, even gravel stones making little impression. We pocketed some pure sulphur crystals, many of which were strewn over the dark slope.

A volcanic crater is a natural reminder of Avernus. It was easy going down, but hard labour to ascend. Fortunately the inner wall is not so high as most of the rim, which itself varies several hundred feet. One stalwart gentleman has told me that near the summit of the mountain he could take but three steps between halts; many who ascend Misti are ill, even when they do not walk at all. I was, therefore, pleased to find that I could take fifteen or twenty steps without a pause,

though once, having advanced a little too rapidly, I felt a slight ringing in my ears and was obliged to sit down for a moment. On gaining the top of the ridge we looked down the other side into the new crater, the bottom of which was 400 feet below. There was a slight odour of sulphur and we could see yellow vapours rising a short distance above the floor. With plenty of time and someone holding the end of a long stout rope, by which I might be hauled up in case I was overcome by the fumes of sulphur, I should have liked to venture at least part way down; but having neither time nor rope we continued along the ridge which rises gradually towards the crater's rim, coming out on the side above the hut about half past one. In descending, we would dig our heels into the stony gravel, sliding several feet at each step. This sounds easy and was good fun, yet we had to make an occasional pause for breath. Our progress was still rapid, so that we reached the hut by half past two, four hours better than Manuel's estimate of the night before.

Our return was by a shorter route, for some distance circling the mountain higher up than the way by which we had come. By the time we were well off the slope, it was dark. When, at quarter of ten, we reached our destination, I was thoroughly tired out (my knees aching the worst), more so than after any climb I ever made on foot, even when out as many hours. Riding down hill on muleback is *not* my favourite diversion. More excitement and less drudgery better suit my taste. I was glad I had gone and *very* glad to get back. Kind attention and the unwonted luxury of a warm bath after a climb added to my happiness. To hardy persons inured to long horseback riding this ascent may be cordially recommended, but not to others.

The Harvard Observatory was established in Arequipa in 1890 for the purpose of making astronomical investigations under meteorological conditions more favourable than those of New England or of most other parts of the world. An especial work has been the photographing of the southern heavens. The Director is generally assisted by three young

men, who seem to enjoy life in this delightful climate with agreeable surroundings, though far from their native land.

The climate and location of Arequipa can hardly be surpassed. Although Chachani is a trifle higher, El Misti, being nearer, an isolated cone-shaped peak of graceful outline, and a volcano not entirely extinct, is regarded by the inhabitants of the city as peculiarly their own, and with an admiration and affection not unmixed with awe. While there has been no real eruption since the founding of the city by the Spaniards in 1549, the mountain is held in a measure responsible for the earthquakes which from time to time have laid waste the city.

If Arequipa itself compared with its climate and location it would be one of the finest cities in the world. With about 85,000 inhabitants, it is, though by a long interval, the second city in Peru. For a place of its population it covers a large extent of ground, most of the houses, on account of the earthquakes, having but a single story. In 1868 many taller structures suffered calamity. Houses may be seen with a wall rising irregularly a few feet above the first story, a mute witness of the disaster.

The finest residences are built of stone, plastered over and painted in bright colours, blue, green, yellow, salmon pink, and other shades. The patios, decorated with flowering plants, often with a fountain in the centre, look extremely pretty and attractive. The dwellings of the poorer people in the outlying sections, with floors of dirt or brick, are in striking contrast. Such people sleep on the floor and many appear to sit there as well. The proportion of indians is far less than in La Paz, most of the people having an admixture of Spanish blood. Among the residents are many families of wealth who travel in Europe, speak several languages, have homes elegantly furnished, and are most agreeable to meet socially.

The people are extremely religious, being called, in fact, the most bigoted in Peru if not in all South America. There is no objection to foreigners worshipping privately in their

own fashion, but they strongly disapprove of any efforts to proselyte others. The cathedral has a simple, imposing interior, the exterior cannot be so regarded.

Of frequent occurrence are religious processions, which are conducted with great ceremony. While I was waiting for a steamer, there fell a holy day in honour of the Virgin as patron saint of the army. On Saturday evening there was a celebration of fire-works in her honour, many set pieces being displayed on all sides of the plaza, the last from the top of the cathedral. These, the finest I had ever seen, I was informed, were all made here. A profusion of rockets and bombs of all colours enhanced the beauty of the scene. The *portales* were filled with gaily dressed ladies and their escorts, and with people of the lower classes, but these kept for the most part on different sides of the plaza. The crowd was polite, quiet and orderly, manifesting very little enthusiasm. Sunday occurred the procession, in which life-size images were carried from one church to another to pay a visit. The streets where they passed were decorated with bits of coloured paper attached to strings which at short intervals were stretched across the street. The images, which were borne on platforms on the shoulders of men, were first a saint, next a warlike maiden, and last a Madonna elaborately attired in white satin and gold. These were escorted by priests, boys, and soldiers, with a company of ladies on the sidewalk bearing candles. Such processions, which have been prohibited in many countries, still occur in various parts of Peru, including Lima.

CHAPTER IX

ACROSS THE DESERT OF ISLAY

Soon after making the ascent of El Misti I learned that an American gentleman, just arrived from La Paz, was intending to go north by the next boat. In strange lands, far from home, where Americans are few, as in these regions in 1903, one is apt to feel that all men from the United States are brothers, more or less. Truly there is a difference, but most men under such circumstances are disposed to be polite, so I went boldly to the hotel to inquire for the said gentleman. He was out, but later called me up on the telephone. Was he going to Quilca? I inquired. Yes, he was. When? By the next boat. Could I go along? Surely! When was he going? Not to-morrow, but probably Wednesday or Thursday. He would telegraph for information about the steamer to the American Consul and let me know.

Further arrangements having been made in one or two interviews, and another gentleman having joined the party, we left Arequipa by train on Thursday, October 1, at 8:30 A. M., expecting to take the steamer *Pizarro* at Quilca on Saturday.

At Vitor, where the railway leaves the river cañon to cross the desert, we enjoy a good breakfast of four courses, and in a leisurely manner go on to San José. At this station, we find in waiting our arriero with animals which have come from Arequipa over night. The arrangement of the baggage was not easy. In the two hours of preparation we walked about or sat in the shade surveying the scene. The railroad track, stretching away to the south, disappeared over or through a sand dune which formed quite a respectable hill. San José was a railway station, *no mas*, as they say, *nothing more*: a low building with several rooms, one

or two small houses adjoining, a bit of green consisting of a few trees and a vegetable garden, a very little oasis in the desert. In all directions could be seen only desert, save for the mountains, which, indeed, were desert also, southwest a low range of sandy and limestone hills, northeast the familiar forms of Misti and Chachani.

At half past one, we set out for Santa Rosa, four or five leagues distant, where we were to spend the night. During the preparations we learned that our *fletero* (the Peruvian term for muleteer), who in Arequipa had declared that he knew the route well, had never been this way before. Now was the time for an imaginative person to conjure up frightful visions of getting lost on those burning sands, of wandering for days and perishing for want of water. To possess an imagination is a great advantage to a writer, but for comfort in travelling one is better off without. Perceiving a distinct track leading westward we follow it with no forebodings of disaster.

It is satisfaction to have horses to ride instead of mules as in Bolivia, but as there were four of these with cargo, as they say, it was impossible to go so rapidly as we might have done otherwise; a great pity, surely, as our horses in the few moments that we allowed them to leave a walk proved to be excellent pacers, capable of making the journey in one half the time. The bright sunshine on the glaring sand rendered smoked glasses agreeable. The heat was less than I had feared. It was warm and would have been uncomfortably hot without the breeze which was blowing constantly from the south. So strong it was that when once or twice I raised my umbrella to keep off the rays of the sun, I soon abandoned the effort.

Through the slightly hazy air, Chachani and the beautiful Misti seemed close at hand, unhappily, almost in our rear. At our right, and more distant, was a fine snow-clad mountain, evidently higher and of more massive structure, which had been pointed out to us above Arequipa as Amfato, and on the railway below as Antasara. Farther north a moun-

tain apparently still higher, crowned with an immense mass of snow, was probably Coropuna, estimated at 22,800 feet, even 23,000. For a long time I watched these great mountains, occasionally disappearing behind a nearer and lower range, but oftener showing thousands of feet of snow above. They looked tempting for a climb and I longed to make investigation, but they were far away. Both still afford the mountaineer a splendid opportunity for a big first ascent.

The desert itself was the genuine article, recalling, except for the absence of camels, our childish notions of Sahara. Other deserts like those of Arizona and Nevada had been a disappointment. Arid, indeed, they are, but still with some vegetation. Here there was nothing. No blade of grass or sage brush, no cactus or lichen peeped forth from that burning sand. Did the sand burn? Perhaps, but with thick boots I did not notice it when I dismounted to take a photograph. The sand, however, was hardly so deep or soft as I had pictured. The horses' hoofs sank in, but not too far for easy riding, and they left a foot print. The plain as a whole is of a yellowish colour with occasional patches which are nearly black from a covering of black sand, and stones resembling well rounded pieces of coal. The numerous sand dunes of material different from the desert floor, some rising to a height of fifteen or twenty feet, give a pleasing variety to the otherwise monotonous plain. It seems strange that the moderate though steady breeze which sometimes attains a velocity of twenty miles an hour should be sufficient to keep in motion these great sand banks, yet they are in constant progress at the rate of about two inches a day. We wonder where they come from. It seems that up in the mountains there is a similar sand at an altitude of 11,000 feet. Of this, immense quantities have been carried by the Tambo River down to the sea and thence washed up by the waves on the coasts below Mollendo. The winds then blow this sand up the steep slopes between the shore and the plateau above. But as there is a distance of twenty miles between the upper-

most sand banks on the slope and the first of the dunes on the plain, it is supposed that *these* came from an older sand beach, 1,000 feet higher than the present, of which evidence is given in the railway cuttings. While the dunes add greatly to the interest of a horseback or railway ride across the desert, they are of considerable annoyance to the railway officials. When one determines to cross the track, in the due course of its travels, nothing can stop it, and considerable labour is required to keep the road clear.

This great desert region of Peru, extending 1,200 miles along its entire coast, is not all alike; though wholly barren save in those valleys where the fifty-eight streams come down from the Cordillera, supplying water for cultivation of the soil. These torrential streams, having carved out their channels in earlier days when perhaps there was more water, then proceeded partially to fill them with good soil. These valleys, together with certain sections in the high plateau region and on the eastern slope of the Andes, constitute the portion of Peru now under cultivation. There is not, however, sufficient water to supply all the bottom lands of the valleys, to say nothing of the plains, unless artificial storage is resorted to, and this is among the earliest plans for the development of the country. A larger enterprise demanding more capital and labourers than are yet at the disposal of Peru is the irrigation of the desert pampas which present extensive nearly level tracts of admirable soil, with climate suited to the cultivation of many productions of both temperate and torrid zone. This particular Pampa of Islay where we are travelling has an area of 2,500 square miles, between the Tambo and the Vitor Rivers. It is an especially favourable field for irrigation on account of its proximity to several good ports and its being crossed by the Southern Railway; also from the fact that at least a portion of the water needed for this purpose might be taken from the Chili River near Arequipa, if storage facilities were provided.

A commission appointed by the Peruvian Government early in the present century is investigating all matters pertaining

to the problem of irrigation, and will make a careful study of the possibilities of each river valley.

It was like meeting a ship at sea when we saw two black spots on the sandy desert. These gradually developed into two natives from whom our *arriero* sought information as to the route. About four we abruptly began the descent into the cañon of the Vitor River. The very irregular walls were in some places almost perpendicular, in others sloping out into side gullies. One of those we went down by a very steep path full of twists, turns, and zigzags. On the beautifully green floor of the cañon, 500 feet deep, is the establishment called Santa Rosa, a collection of bamboo sheds, inhabited by one or two families.

Our request for lodging was received with a little demur, but our mules were soon relieved of their burdens while we stretched our own limbs. A queer place was this. Our goods were deposited under a bamboo roof with enclosure on three sides. On the dirt floor are a table and several chairs. A door leads into a four-walled room, the kitchen, containing a stove, a table, some boxes for seats, and a few, not many, dishes.

The green of the cañon floor is partly composed of bushes and willows fringing the little gurgling stream, and partly of cultivated fields. Soon after a dinner of soup provided by our hosts, with mutton, tea, and fresh figs from our own stores, we prepare to retire, as the *fletero* says we must set out at three A. M. The best accommodations are assigned to me—the table, which is six feet long. Spreading on this my sleeping bag, being quite wonted to a hard couch, I sleep as well as I might with a spring mattress. The gentlemen, one with a sleeping bag of mine, the other with mattress and blankets of his own, occupy the dirt floor.

At 3:30 A. M. we aroused our *arriero*, who was going to get up at one, and the woman who was to make our coffee. We thought ourselves fortunate in setting out by half past five, not much later than the dawn had rendered practicable. A boy attends to put us on the right track. The cool, crisp

dawn had lightened into sunshine before we came out upon the plain where our old friends, Misti and Chachani, seemed almost as near as ever. In the early morning the sky is a beautiful blue, the air so cool that my woollen jacket, cloak, and leggings are comfortable. I even take a short walk to get warm. At the left is a low range of hills, yellow, brown, and black, later running around to the front. From these come down long streaks of white sand, some across our path.

The horses are in excellent condition, and after pausing to take photographs we enjoy a few short gallops, but we may not venture far ahead of the mules. In the warmth of the rising sun I doff my cloak for an hour only, as the breeze makes the air too cool; an astonishing temperature for a tropical desert but 3,000 to 4,000 feet above the sea. By an extremely gradual slope we at length reach the hills, about eleven pausing for luncheon on the hither side, where we are somewhat sheltered from the wind. A half hour out of the breeze makes us realise that the sun is warm in the torrid zone. After our brief rest we press on in pursuit of the cargo mules which made no halt as there was nothing for them to eat or drink, so the sooner they arrive the better. Beyond the crest of the hills we had a glorious gallop across the plain. My horse easily kept the lead till, fearing that I might go over his head, as my stirrups were a trifle too long, I felt obliged to check him a little. A more delightful ride could not be desired; the ground just soft enough for splendid footing, the air and temperature perfect, the scenery strange and interesting. I had my first view of a real mirage which was rather disappointing. It looked like water yet obviously was not. On overtaking the mules, we three travellers decide that it will be less tiresome to go ahead and reach Quilca as early as possible; and just as safe, since the *fleteiro* is as unfamiliar with the road as we.

Proceeding under a cloudy sky, with now and then a fine gallop, at 1:30 P. M. we suddenly come to a jumping off place, the edge of a cañon where a sharp descent begins. After winding down a steep slope, we proceed along the bot-



Sand Dune, Pampa of Islay



Quilca

100

430

tom of a nearly level cañon, the floor less than ten feet wide, with nearly perpendicular walls rising one or two hundred feet above. A ridge several feet high between the two tracks hardly leaves room each side of a horse for our feet, which thus need constant attention. Already we have seen the first signs of life, grey bushes on the hillsides. In the cañon are more bushes, presently some grey moss, farther on a pretty little purple flower, next a cactus, then a few yellow flowers. The cloudiness increases and everything is grey. In the sand are germs of life which these fogs awaken, if no rain. Our horses, a little tired, go mostly at a walk. After several twists and turns in the narrow cañon, we climb up the steep side; a few rods at the top and we descend into another cañon soon to repeat the operation.

We now discover that we are in a section of country all seamed with dry cañons or gullies leading from the plateau down to the shore. We are glad presently to have a long stretch on one of the ribs. While discussing here the probable hour of arriving at our destination Mr. P—— and I at the same moment exclaimed, "Oh, there is the sea!" to which Mr. W—— promptly retorted, "That is mirage!" "Well, I guess not," I rejoined, "I can see the surf breaking on the beach." A moment later we espied a large patch of green where the cañon of the Vitor River debouches on the shore. Though far below, it looked so near that, not expecting to arrive before dark (it was then only three), I was somewhat disquieted lest this should not be the right place, but one too far to the south. The others did not share my fears and in any case there was nothing to do but to follow the tracks onward, which now led away from the patch of green in a line parallel with the shore, till, after a mile or so, we came to the brink of an immense dry cañon with perpendicular walls of jagged rocks mottled with red and grey. It is a fine, awe-inspiring cañon, for when we have descended to the floor and look up to these great overhanging rocks we wonder where we should be if they decide to fall. Under them, perchance, but as there is no particular reason why

they should fall just now, admiring the gloomy impressive scenery we continue towards the sea in the silent solitude, shut in on every side by these grand and lofty walls. Far above, perched on the side of the cliff are two birds, the famed South American condors, in the distance appearing of no great size. After a sharp turn to the right, the side wall at the left gradually drops away until we find ourselves within a few rods of the ocean, separated from it by a small patch of green. The path now enters a willow thicket, so badly cut out that we have to stoop and dodge to avoid being decapitated. Far above, across the valley of the Vitor, as over the narrower cañon we have left, a single wire is suspended with a span fully a quarter of a mile long; for while rail or carriage roads are very scarce in Peru, telegraphic communication is possible to most of the small hamlets. A few houses at the top of the cliff opposite we conclude is Quilca, our destination. A zigzag path on the steep wall confronting us seems far too difficult for horses, but descrying some riders on the way down we are reassured.

The stream which makes possible the verdure of the valley spreads over a wide surface and naturally has no bridge. The depth varies from two to six feet, but we have little trouble in finding the ford. On the farther slope we meet the party coming down. In the momentary parley we are informed that our boat sailed at ten o'clock that morning. This we can hardly credit, but hastening to the village we have the sad news confirmed. Being further advised that in the port of Quilca below we may obtain hospitality, we descend into a cañon beyond, at the foot of which a single street, lined with a dozen wood or bamboo houses, leads down to the water of a pretty little cove so nearly enclosed by bluffs that the ocean is altogether invisible. At the water's edge, we find the office of the Captain of the Port who, strange to say, speaks English, and has been in Boston, New York, and Washington. He informs us that the *Pizarro* arrived Thursday afternoon and left at ten this (Friday) morning.

He knew these dates on Tuesday and wondered that we had not been correctly informed at Arequipa.

Great was our disgust and many, though idle, our expressions of wrath against the company officials for not supplying its agents at Mollendo and Arequipa with accurate information in regard to the motion of the boats. We might just as well have come one day earlier, or, even as it was, by riding on in the moonlight have caught this steamer. But there we were and there we must stay till the next boat, which was expected the following Tuesday.

Where now should we lodge? The villagers having assembled to see the new arrivals, one man was pointed out as the provider of rooms, another of meals. The former offering to give us two rooms, Mr. P—— inquired if he had not three. I suggested that as probably there were no beds two might suffice. My suspicion proved well founded. A few steps up the street we were ushered into a house with two rooms both utterly devoid of furniture and with very dirty floors. A little maid, with a small and ancient broom and some assistance and instruction from me, presently succeeded in removing most of the dirt, but left behind many fleas. Three chairs were brought in, and one small wash bowl and pitcher for us all.

Three hours later came our *fletero* with the baggage, saying that he had followed our tracks all the way; indeed, he was an excellent guide!

Our dinner was better than we had feared from our sleeping accommodations; good vermicelli soup, next squash and rice, then steak and rice, also nice hot rolls and tea. We soon sought our sleeping bags on the floor, tired enough to sleep well in spite of primitive accommodations.

The principal events of the days following were breakfast at eleven and dinner at six, morning coffee whenever we liked. Once or twice daily I climbed the high cliff to gaze over the sea, down at the dashing waves below, and along the stretch of barren coast. The weather was cloudy with an occasional gleam of sunshine, the ocean as grey as the sky, a rare rift

of blue in either. Some old walls with bits of pottery confirmed the story that indians once dwelt above.

At last Tuesday arrived; towards night the boat also. Cheerfully we paid our bills. One of them was reasonable enough, one dollar for the two rooms for the four days; doubtless sufficient when you remember how they were furnished. For the meals we each paid \$4.50, which seemed rather dear, but food may have been expensive in this barren spot.

In the moonlight we embarked in a rowboat, with two men at the oars and one at the rudder. On leaving the quiet cove, while rounding the corner of the bluff, the big waves of the choppy sea, dashing against the high cliffs on either hand, made our boat seem small and frail. I was glad when we passed out into the open sea, though here the rollers were of unusual size. The lights of the steamer gleamed a pleasant welcome, but what a long way it proved! the sturdy strokes of our oarsmen slowly lessening the distance. Around on the far side of the steamer, we wait for the Captain of the Port to give us way. Now for the stairs! A quick leap when the wave lifts the boat! I am on, but the wave comes higher still and catches one foot before I am out of the way. It does not matter; we are safe and our baggage is hoisted after.

Though it was not my habit, the attraction of a civilised dining room constrains me to enter for the nine o'clock tea, and lo! here are two American gentlemen who left La Paz a day earlier than I, to return by the way of Antofagasta. All this time they have been on the journey, while I have spent ten days at Arequipa besides the four at Quilca. So I congratulate myself on my selection of routes and rejoice that my ride across the desert, the most delightful I ever had, on the finest horse I ever rode, has ended so pleasantly, on the good ship *Guatemala*, which in five days carries us on to Callao.

CHAPTER X

LIMA AND THE OROYA RAILWAY. A PYGMY CITY

IN the enjoyment of the comforts of civilised life, with a captain and two others who were fond of an afternoon and evening rubber at bridge, the five days on the British ship *Guatemala* were an agreeable change from Quilca.

It would have been pleasant to continue to Panama in the same company, but this was one of the *caletero* boats going only to Etén and calling at the smaller ports. Accordingly, on Sunday morning, with bag and baggage, I took the train for Lima, ten miles from the port, Callao, there establishing myself at the Hotel de Francia y Inglaterra at the corner of the Plaza de Armas or Cathedral Square. This hotel is now connected with one at the other end of the same block, the Maury, long the leading hostelry of Lima; but many have always preferred the old Francia as being more homelike and as having many rooms which look out on the Plaza.

In Lima there were many more English-speaking people than in Arequipa or La Paz, most of them engaged in mining, or connected with the railroad or with various large commercial establishments. One American, so long resident here that he seems almost like a native, would doubtless elicit encomiums from our worthy ex-President on having been the proud father of twenty-eight children, born as he himself informed me of the same mother in twenty-four years, only one pair of twins. It may be unnecessary to state that his wife was a Peruvian, or that she is dead, as are one-half of the children also; which seems on the whole rather poor economy.

The city of Lima is described in many books. It is an agreeable place of residence, save for the fleas, which are not only numerous, but on this first visit seemed especially,

vicious, an opinion shared by others. Without Persian powder life would have been intolerable. In later years the insects appeared less rampant, though always annoying. The buildings of Lima are not imposing, in the centre of the city only two stories high, but this to me was no blemish. In 1903, I had opportunity merely for a few hasty impressions of the place, including a visit to the old cathedral, opposite my window, the clanging bells of which give frequent calls to worship from early dawn till dark.

However limited one's time in Peru no one should omit an excursion up the Oroya Railroad, if able to endure a difference in altitude of 15,000 feet in seven and one-half hours; if not, one may still go as far as Matucana, which is better than nothing. This wonderful railroad, the highest in all the world, was largely built in the 70's by an American financier, Henry Meiggs, who persuaded the Peruvian Government to enter into a contract with him for this purpose. At the time of Mr. Meiggs' death, in 1877, the road had been completed and was in operation as far as Chicla, eighty-seven miles, and much of the work on the remaining fifty miles to Oroya had been accomplished. The finishing was a comparatively easy matter, though delayed until 1893 on account of financial difficulties resulting from the war with Chile.

It is indeed a great railroad, and it was a man of courage, of enthusiasm, and of large ideas, who undertook its construction. Mr. Meiggs not only saw, as others perhaps had done, the importance, nay, the necessity, of connecting the coast cities with the interior; but he had faith in the possibility of climbing, by means of the iron horse, the high wall, which for a distance of 1,000 miles along the Peruvian coast rises to a height of from 14,000 to 17,000 feet; in many places, as back of Lima, reaching this altitude within 100 miles of the sea. His plan, indeed, was still greater. He proposed, after reaching the plateau region at Oroya, to build north to the famous rich silver and copper region of

Cerro de Pasco and thence down the east side of the Andes to a navigable tributary of the Amazon.

It was not until 1904 that an American company opened the prolongation to Cerro de Pasco, while the plan to continue the road east to the Ucayali River, though never abandoned, has but recently arrived at the stage where a concession has been granted, also to an American, for this purpose.

The Oroya Road is a remarkable piece of construction, though some persons now claim that it might have been built on a better plan at far less cost. Apparently, many men of large ideas have extravagant methods in carrying them out. However that may be, Mr. Meiggs did much to promote the development of Peru, and his name is there honoured among her benefactors.

The fine road-bed with a grade of from two to four per cent. follows up the valley of the Rimac River, the much steeper gradient of which is overcome by means of many long curves and V's. The narrow floor of the cañon and its often almost perpendicular walls compel fifty-eight tunnels in the 130 miles from Lima and there are numerous bridges.

One must rise early for this trip as the train left at seven in the morning. The valley in its lower part has a level floor of considerable breadth with vegetation of sub-tropical character, irrigation providing ample water supply. Along with the sugar cane and banana groves, as also higher up the stream, we see indian corn and alfalfa. Farther on, where the narrowing valley is inclosed by steeply sloping walls, remains of ancient highways, villages, and irrigating ditches indicate that in the days of the Incas the population was far greater than at present. Professor Solon I. Bailey, after much wandering among the ruins of ancient towns near Chosica, estimated that once there was a population of 6,000 in a district then containing barely 500. So unjust and improvident were the methods of the early Spaniards, who, in their madness for gold, ill-treated the natives and ignored the importance of agriculture, that for many years

the development of Peru has halted, among other causes, from this diminution of population; her progress is still impeded by a lack of labourers.

At half past eight, twenty-five miles from Lima, the train pauses ten minutes at Chosica, giving opportunity for a cup of coffee to those who failed to secure one before setting out. This town is growing rapidly, having become, as it were, a suburb of the capital city to which there are several daily trains. Situated just at the edge of the fog bank or cloud which in winter hangs over the coast, it has much more sunshine than Lima and is a health resort for those natives and foreigners who are unpleasantly affected by the chilly dampness of the city. A hotel afforded fair accommodations and some houses were to let furnished. A fine, large, new establishment has recently been opened to visitors.

Many side cañons branching from the Rimac Valley must be spanned by high bridges, among them the Verrugas Gorge which, in order to cross, the iron road ascends for a distance of half a mile. The bridge over the cañon has a long span with piers at the sides, the engineers having learned by sad experience the un wisdom of placing a pier in the middle. In 1889, when Professor Bailey was prospecting along the Rimac Valley for a site for the Harvard Observatory, he saw here a fine iron viaduct with a central pier 252 feet high. On his return four days later, he found this massive iron structure swept away: a tiny brook was trickling at the bottom of the cañon, as when he went up. How could it have happened? The fragments of iron strewn for half a mile down to the Rimac, mingled with masses of debris and immense boulders, told the story. A cloud-burst, as we might call it, had occurred on the precipitous slopes of the upper part of the Verrugas Valley. A foaming torrent, sweeping down enormous boulders against the central pier, had caused a complete collapse, save that one line of rails, well riveted together, without any medial support still swung across the cañon.

Frequently there is room on the floor of the Rimac Valley

only for the rushing stream. Not far beyond the Verrugas Cañon the train passes through a tunnel in the rock wall at a height of 575 feet above the bed of the river. In several places the side walls of the valley are so precipitous that workmen had to be lowered by ropes from the top of the cliff above. Sitting in a swing they cut out footholds in the rock before beginning on the tunnel. Some of the cliffs are 2,000 feet high.

Matucana, the breakfast station, at an altitude of nearly 8,000 feet, always affords a good meal. It is an excellent plan for persons not quite sure of their hearts or otherwise delicate to remain here a day or two before proceeding to Oroya; thus they are more likely to avoid discomfort. One lady whom I knew was compelled by a severe nose bleed to discontinue her journey at this point and after spending, as she said, a terrible night to return to Lima. But she was stout and full blooded.

Beyond Matucana the grandeur of the scenery increases. There are tunnels galore. We dash out of one and into another, we cross bridges, we admire cascades and waterfalls, one of the latter several hundred feet high. One dark and gloomy gorge, where tall cliffs withhold most of the light of day from the roaring stream at their foot, is called *Infernillo* or *Little Hell*.

Even at this altitude, in various places where the slope permits, we see that the land, now dry and barren, was once terraced by ancient walls and irrigated for cultivation. Other slopes or cliffs have a thousand projecting or overhanging boulders, rather ominous in appearance, but generally harmless in the dry season. In the rainy months, rock falls or landslides are not uncommon, though as a rule without serious results; as it is the custom to have two or three men on a hand-car precede the passenger trains on the way down.

Near the village of Chicla the road has five nearly parallel tracks, one above another, with tunnels, curves, and V's, in three miles of track climbing nearly 500 feet within a short

distance up the valley. At a large mining town, Casapalca, altitude 13,600 feet, opportunity is afforded for afternoon tea. Long ere this the temperature has become quite cold and many persons are affected by the rapidly diminishing pressure of the atmosphere. They look pale, have headaches, and keep very quiet.

Among the passengers was a party of officers and men from a British man-of-war in the harbour. One slender young fellow, who was very anxious to know when he might expect to be afflicted with *soroche*, was greatly comforted when the conductor, to prevent his having it from fright, stretched the truth a little by informing him that he would have been affected long before if he were going to be ill at all.

The highest point ¹ of the road, 15,665 feet, which would pass above the summit of every Alpine peak except Mont Blanc, is in the Galera Tunnel, here crossing the divide between the Atlantic and Pacific slopes at a distance of less than one hundred miles from the Peaceful Ocean. From the station at the entrance of the tunnel we look up to a rounded hill bearing no snow whatever, which is called Monte Meiggs after the American contractor, and has an altitude of 17,575 feet. Thoughtlessly walking a few rods from the station on a slight up grade at my usual brisk pace for the purpose of taking a photograph, I was surprised by a slight ringing in my ears. I felt quite pale; standing still a moment I recovered sufficiently to take the photograph and returned to the car more sedately.

Persons with a tendency to apoplexy or with a weak heart should on no account make this or any such trip. I heard of one man whose face turned purple, the blood oozing out through his skin. A slight hemorrhage from the breaking of a blood vessel saved his life. A friend hurried him down to Lima by the next train, warning him as he valued his life never to try this again; but six months later he did and in consequence died.

¹ A branch road to Morococha climbs a few hundred feet higher.

Some Americans, trying to be smart, will endanger the life of a tender-foot. One man who on his first trip was bragging a little of his immunity from *soroche* was dared by a by-stander to run up a ladder standing near. He did so; but, on reaching the ground again, dropped insensible and might have died from the effort. Naturally, the new-comer who has not read of the conditions is unaware of the danger, even to the strongest men, of much physical exertion before becoming accustomed to the altitude. After passing through the tunnel there is a view of beautiful snow covered mountains and glaciers. It is difficult to credit the statement that these peaks are no higher than Monte Meiggs with no snow at all, but the contrast is said to result from the difference in the amount of precipitation at the two points, due to a peculiarity of the winds.

Just before dark we reach Oroya, the railroad terminus, altitude 12,178 feet, with a single street and a small hotel, this last better than I expected to find in such a place. The rooms were small and scantily furnished, but I thoroughly enjoyed the excellent dinner of soup, fish, beefsteak, mutton, vegetables, a nice bird, and dessert, to all of which I did full justice without fear of the consequences. The Britishers also ate heartily which I thought for them was rather rash. As I had asserted on the way up that probably *some* of them would be sick, they informed me with great glee that none of them had been affected. It *was* remarkable, but next day I was amused to learn, quite incidentally, that all had passed a sleepless night, suffering from headache (a few very severely), which did not leave them until they reached a lesser altitude on their return.

To visit either Cerro de Pasco or Tarma from Oroya, as I longed to do, would have taken several days, probably causing me to lose the next boat north, so I felt obliged to descend in the morning.

One of the pleasantest and most profitable features of travel is meeting interesting people of different nationalities. From this point of view the solitary traveller has an ad-

vantage, for a person alone is more apt to make acquaintances. On the way down, I fell into conversation with a gentleman who gave me considerable information about the interior country, which in spite of careful planning I have yet failed to visit.

This gentleman, a native of the British Isles, had lived in Peru, he said, for twenty years, eight of these in the *tierra caliente*, or *montaña*, the warm forest region on the eastern slope of the Andes. Peru has three distinct sections, first the arid coast district, next the highland called the Sierra, including the plateau region and the mountains, and third the *montaña*. He described the last as a beautiful country with a fine climate, though the temperature and healthfulness depend upon the precise location and altitude. All of this region is productive of luxuriant vegetation, since on the east side of the mountains there is a great deal of rain. Moist winds come from the distant Atlantic, shedding rain drops by the way, till at last the remaining vapour is condensed by the great cold mountains and there is much precipitation, especially on the east side, with little left for the range nearest the coast and none at all for the coast land itself. Hence, the tremendous difference between the east and west slopes of the Andes, though often but a few miles apart.

My "chance acquaintance" lived three days' journey from Oroya down the eastern slope, Oroya itself being on a stream, which by a very roundabout route ultimately flows into the Amazon. In the fertile valleys on that side are a number of pleasant towns, with an agreeable climate where tuberculosis may speedily be cured. Farther down it is warmer and in places malarial. It is a curious fact that in certain sections this disagreeable malady does not exist, while in others at the same altitude, formerly exempt from the disease, it is now prevalent. Certain regions still lower are afflicted with beriberi and other dreadful diseases.

My acquaintance was superintendent of an immense estate of nearly 5,000,000 acres, now owned by the Peruvian Cor-

poration, though originally settled as a coffee plantation by Italian and other colonists who, when the price of coffee declined on account of increased production, became discouraged and abandoned the country. Although coffee of the finest quality could be raised, the cost of freight, \$60 a ton to Lima, was such that it became unprofitable to export it to Europe.

It may be said, however, that the failure was due chiefly to incompetence and poor management. At the lowest price, the coffee lands give a good return on the investment; at high prices a fine profit. The coffee is equal to the best that is grown anywhere, while the yield is greater than in Arabia and Java. 800 plants to the acre produce each 2 pounds annually. With a million and a half of plants the production of the estate is now more than double that of the early settlers. There are other large plantations in the region of the *montaña*, and some coffee is raised along the coast, so that Peru is able to export two million pounds annually, consuming as much more.

The estate, which is divided into twenty-six farms and employs from 500 to 2,000 men, also raises cocoa and coca, rice, tobacco, and vanilla, some of which yield a better profit. Cocoa grows spontaneously and presents the great advantage of requiring no attention or expense after transplanting save for picking the fruit, while the plant lasts a century. The industry in Peru, not yet largely developed, offers a great opportunity to investors.

A large part of this property is covered with exuberant vegetation; thick forests of gigantic trees in wonderful variety, which will be of great value when there is a possibility of getting the wood to market at a reasonable rate: cedars, English walnut, mahogany, camphor wood, Peruvian wood, very hard, both red and white; and many other kinds of trees of soft wood, the names of which my friend himself did not know. The trees average eighty feet in height. The forests have a dense underbrush, so that in walking a machete is needful and it is impossible to see any distance.

Wild animals abound, jaguar, leopards, panthers, puma, and tiger cats of great damage to fowls. Snakes are plentiful, boas ten feet long, generally harmless, rattlesnakes six feet long, much more dangerous, and a black and red coral snake, half a yard in length, the size of a finger, which has a deadly poison but is fortunately not very prevalent and seldom bites. There are hairy spiders, not tarantulas, which are large enough to eat birds.

Of smaller animals there is a multitude of monkeys and squirrels. A very beautiful and useful creature is the ant bear, for ants are a source of great devastation. The ant hills are mounds four or five feet high. Of these insects the most numerous and destructive are the coquis half an inch long. In one night they will carry off a whole sack of wheat. They will eat all the leaves from a tree. The labourers kill them by pumping into the ant hill a smoke composed of four parts sulphur and one part saltpetre. Another method of slaughter is making them with cold water into mud pies. When their tracks are discovered anywhere they are followed and the places of ingress or egress are stopped up.

Horses, cows, hogs, hens, turkeys, ducks, and geese are kept on the estate and there is game in the form of deer, wild hogs, and turkeys. On account of a difference in altitude of 3,000 feet between the upper and lower boundaries of the property, there is an abundance of fruit of the torrid and temperate zones such as oranges, pineapples, chirimoias, granadillas, paltas, mangoes, with apples, strawberries, and grapes. Also there are all kinds of vegetables except sweet corn. The superintendent himself lived at an altitude of little more than 2,000 feet, where the temperature is from 80° to 86° Fah. and no blankets are needed at night; but near the upper boundary of the estate, at 5,000 feet, a blanket is desirable.

In this section of the *montaña* are many indians called *chunchos*, entirely different from those of the sierras and coast. The latter, formerly under the dominion of the Incas, were a semi-civilised race of workers; the indians of the east-

ern slopes of the Andes are of various tribes and of different degrees of savagery, most of them neither dangerous nor hostile, but some more remote are shy of foreigners, unfriendly, and might be dangerous.

Returning from Oroya, I left the train at Matucana to investigate a so-called Pygmy city in the neighbourhood, which a friend, the late Emory Calvin White, had strongly urged me to visit. This gentleman had, in New York, related to me with much enthusiasm his discovery of these ruins in April, 1885, in company with the Rev. J. M. Thompson of Callao. In 1891 Mr. White had again visited these remarkable remains of a traditional past in order to make a more careful investigation of the site, taking at this time from under the walls of the city a number of mummies, varying in length from $27\frac{1}{2}$ to 36 inches; to him conclusive evidence of the diminutive stature of the inhabitants.

Unfortunately, my time was so limited that I was unable from personal observation to confirm many of the gentleman's statements or theories, but my visit was full of interest and the place seemed to offer a worthy field to one archæologically inclined; a taste which having myself formed during a year's residence in Greece I should have been glad to gratify here.

With difficulty I made arrangements to go on horseback to the site of the ruins at the top of a small mountain called Huacca Puna some miles down the valley. On being told that even with a very early start the journey would necessitate my spending one night in the open, I expressed my determination to return if possible the same evening, to which a Peruvian engineer in the hotel responded, "You no will can." His scanty knowledge of English, which he seemed anxious to put into practice, had been gained during his four months of married life from his wife, who acquired some acquaintance with the language in the English school at Callao.

At six o'clock in the morning I set out on horseback with a guide. Crossing to the right bank of the Rimac, we rode down the valley along a path often but six to twelve inches

wide on a very steep slope several hundred feet above the river. Though I did not especially relish the situation, I rejoiced in the fresh morning air and the picturesque scenery, instead of foolishly worrying over the possibility of an accident.

A gully which led up to a higher mountain farther back gave us some rather rough bits in crossing to our own peak. At the bottom of the gully, as for some distance up the farther slope, were cultivated green fields. From the last house which we passed about nine it was quite a climb to the top of the Pygmies' retreat, several thousand feet above the valley, our horses being left half way.

The remains of an ancient city and fortifications are indisputable. The citadel at the top, which may have been the residence of the chieftain, was defended by a precipice on one side, on others by natural rocks and an artificial wall; there are steps leading up to a gateway. In search of hidden treasure, pottery at the least, I crawled into several holes, from one of which I had to be pulled out by the heels. Below the citadel are remains of many houses, with spacious halls or patios eight by twenty feet, and small rooms six feet square with entrances or openings a foot or so in height. Some of the dwellings seemed quite elaborate, apparently with an upper story reached by stone steps still projecting from a wall.

Enclosing the residence section which contained about two hundred dwellings, were several tiers of walls; below, the hill was terraced for cultivation and pasture. It would appear that the stronghold at the top was designed as a place of retreat in case of attack and inability to defend the lower fortifications. We tried a little digging but found nothing of apparent value: merely bits of pottery and bones, some of which I brought back to the United States.

According to Mr. White's theory, gained from traditions of the Incas, the little people who once dwelt here formerly lived near the sea at the mouth of the Rimac Valley. Being driven thence by invaders from the north or



Pygmy house wall with steps outside



Pygmy city wall

rain water two feet from the house wall. The rooms were used for sleeping only, household duties going on in the patio. Circular subterranean chambers underneath some of these were used as granaries.

Here lived the little people till at last, ages ago, they were driven out by ruthless invaders who envied them even their little mountain home or who destroyed them from sheer malice. It is, however, related that a few escaped and fled over the mountains into the region of the Amazon where rumour has it that they dwell even to this day, as in the interior of Africa.¹ For the truth of this I cannot vouch, and as I never saw my friend after my return, I was unable to inquire more closely as to his authority for the Pygmy tradition apart from his own investigations.

The doorways which I saw, two or three feet in height with lintel still in place, and the very small windows seem to afford evidence in support of the theory that little people once lived here; but the President of the Lima Geographical Society to whom I spoke on the subject apparently believed this to be an ordinary ancient fortification.

Our return was to me mildly adventurous. Half a mile below the inhabited dwelling, when it was already dusk, my guide discovered that he had left his *alforjas* (cotton saddle bags) behind, and returned for them on horseback. Tired enough to prefer not to add to my journey, I sat in the dark and waited a half hour or more, holding my horse, while the burro carrying the baggage was tied to a stone or tree. Though not *expecting* to be molested by beast or human creature, I had my revolver ready in case of need. After long watching and occasional shouting I was relieved to see a light; then I perceived fires. Again the light appeared and slowly approached. Two men there were: one, my guide, now with a lantern, the other, who lived above,

¹ A confirmation of this ancient Peruvian legend would seem to be found in a recently published statement by Alberto Fric that in a Brazilian forest in the State of Paraná he lately discovered a tribe of pygmies called Kurutous, the tallest of whom was four feet six inches.

to show him the way; for in the night we were to return by the valley route instead of along that steep slope above. The new man talked too much for my liking, and I kept saying, "*No entiendo*," "I do not understand," even when I did. It was cloudy, and among the trees and bushes very dark; in one place we went down a rock wall where the horses followed with difficulty. It was, however, better to go stumbling down the gully with the chance of breaking one's limbs than to risk one's neck by a roll down the sharp incline where we had passed in the morning; for the rocks in the valley below were hard and rough and jagged.

At last we arrived at the railroad track in the Rimac Valley, where I could mount my horse. The trains run by daylight only, so it was safe enough to ride in the middle of the track or, if the sleepers were too prominent, on a path at the side. After a while we turned off to a house where we were greeted by much barking of dogs. A man and a woman came forth, when, learning that we were going on, the woman kindly set a light in the window for our benefit, while the man came along to show us the way across a bridge and up an ugly bit on the other side. The bridge was of the old fashioned sort, if not dating from Inca days, yet constructed on the ancient pattern; a swinging affair scarcely more than a yard wide made of strong woven vines, lower in the centre than at the ends, and with no sides except for a small hand-rail. Naturally I preferred to cross on my own two feet while the horse was led. As a matter of course, being never dizzy, I enjoyed the strange experience; the swaying bridge over the rocky, rushing stream below, the darkness of the starlit night, doubled by the gloomy cañon walls towering thousands of feet above. What is life, if always in the same deadly routine? A thrill of awe, a spice of adventure, affords many pleasant memories.

After a while we came again to the railroad track which also had crossed the river, but with our horses it had been impossible to pass on the open trestle. Jupiter overhead among the stars gave a bright friendly light, down in the

gloomy valley. We crossed a number of brooks, tumbling down to the roaring stream below, in the evening much fuller than in the early part of the day. The guide had not wished to return the same night, declaring it to be impossible. Now he urged haste, asserting that the hotel would be closed if we were late. I was glad enough to let my horse pace when the way would permit and neither man nor beast was sorry when the valley broadened out ahead and we saw the lights of Matucana. Again greeted by the barking of dogs we arrived at the hotel much earlier than I expected, at five minutes of nine. All were surprised to see us back the same night, and the proprietor cordially shook hands. A cup of chocolate with a roll, while I told my story, sent me off to bed well qualified for a good sleep.

The next day, before train time, I had opportunity to stroll about the town and to visit a school for girls; co-education in Peru is unusual even among small children. There were two rooms, one for the A. B. C.'s, the other for older girls. I heard a class in botany and one in geography in excellent recitations. The map of Europe was evidently well understood by these girls ten or twelve years old. The pupils rose to greet me when I entered as also when I left, and the teacher was a model of courtesy. I was much interested in a little school-book I saw which gave instruction in ethics, in duties of various kinds, and many practical hints in regard to conduct. A similar one, it seemed to me, might be introduced to advantage in our own schools.

The afternoon train was a freight. Though I paid full fare for the privilege of riding part of the time on the locomotive and part sitting on a bag on an open truck, several dead-heads were on board who dropped off just before entering Lima at five o'clock. One of them was a young Bostonian whose parents lived on one of the fashionable streets of the Back Bay. He wanted to go home, but had no money, so the train conductor did not "see" him. Such kindness is not uncommon though sometimes abused.

CHAPTER XI

RETURN TO NEW YORK. NEW PLANS

ON Saturday, October 17, I embarked on the steamer *Mapocho*, one of the smallest and most ancient of the line, possessing but a single merit; an unusually large open space on the upper deck for lounging, promenade, or sports. I found myself the only English-speaking lady on board, as has happened on every return voyage of my four trips, though there have always been one or two others going down. On this voyage only we passed by daylight near the promontory, Point Pariña, the western extremity of South America, though Cape Blanco, a few miles farther north, is often spoken of as such. Along here we saw the derricks and pipes of oil-wells, thirty or forty in number, some on a steep slope, others at the top of the cliffs. Seven miles to the north is the port to which the steamers come for the oil. This is piped from the wells to large tanks at the port and thence to the steamers. Not far away, a lighthouse, a rare object on this coast, sends forth its beams to guide the mariner.

The petroleum industry, if such it may be called, is developing in Peru to a good degree of importance. In the Department of Piura where these wells are located are two other oil regions, the three together covering an area as large as Holland. In several other sections of the coast, as also in the Sierras, oil has been found; but only two companies are at present in active operation.

A chemist of Pennsylvania, Mr. Lorkin, who analysed the oil, states: that the petroleum of Piura is superior to that of the United States, not having its detestable odour, and possessing very little paraffin, that the heavy oils are of great value like those of Russia, that the kerosene ex-

tracted is of better quality, giving a brilliant light, and that the crude oil may be employed as fuel with no other treatment than being a few days exposed to the air in open tanks. This oil was in 1903 in use on the Oroya Railway in place of coal, the engines of American make having been remodelled for the purpose.

Greatly to our satisfaction we sail from Paita directly north, leaving Guayaquil out in the cold, or rather in the heat; since Guayaquil, on account of the bubonica in Peru, was not receiving ships from the south. It seemed funny how each country quarantined against its neighbour, when perhaps it was suffering from the same disease or one that was worse. But we were thankful to gain a few days in sailing straight to Panama.

The conversation of people in Peru is not so much about the weather as with us, for the weather varies little from day to day; yet Americans cannot at once forego the habit. Among travellers at this time the main topics of discussion were, shall we catch the next steamer? When will it arrive or depart? The thing we were moderately sure of was that it would not arrive or depart on the appointed day. On board there remained a more important question. Shall we be quarantined and if so how long? Smallpox, yellow fever, or bubonica, one of these was usually prevalent somewhere, and the resulting quarantines were sufficient to upset the most careful plans.

One evening I heard a story of a gentleman who, on the previous trip of the *Mapocho*, was returning from Europe. On arriving at Colon he was there quarantined for ten days; just why is not related. Having crossed over to Panama he waited ten days while the *Guatemala* was doing twelve days' quarantine and finally took the *Mapocho*. At Paita, on account of the ship having called at Guayaquil, there were nine days more of quarantine. At Etén he found the *Guatemala* and concluded to transfer to that ship, but this remained two days for cargo, while the *Mapocho* went right

along. At Callao he just caught up with the *Mapocho* as she was about to sail and climbed on board. At Arica they did two days' more quarantine and the gentleman landed at Antofagasta after a voyage of two months. So disgusted was he with his experience that he declared that he should make a will that none of his children should ever travel on these steamers.

Another story was of two priests who had recently made the same voyage. Contrary to advice, they persisted in going ashore at Guayaquil and in visiting the hospital there. On their return they were recommended to take whiskey for a cold, but one of them declined to do so. At Paita this man was said by the ship doctor to have a little fever, perhaps of the scarlet variety. The medico from Paita, however, said "yellow fever" and gave the ship twelve days' quarantine. On the way to Callao the priest, now convalescent, ate a bit of beefsteak which caused a slight return of fever; result, fourteen days' quarantine; a loss of twenty days altogether for many people, through the folly of one man.

Of course, I heard about the old lady who used to go sailing up and down the coast. She was the happy owner of an island in the bay of Panama on which there was a fine spring of water. This was desired by the Pacific Steam Navigation Company, as the water of Panama was not of the best quality. After some negotiations a sale was effected with a clause to the effect that the lady should have free transportation for herself and a companion whenever she desired to travel along the coast. The result was that she spent most of her time sailing up and down. Unfortunately, she was, so they said, very disagreeable, ordering the stewards about as if she owned the ship. Not satisfied with getting her subsistence from the company, the old lady would take persons along as her companions getting them to pay her, perhaps half fare, for the journey; but this scheme on being discovered was spoiled. In vain did the

Company seek to buy the old lady off. She continued to sail up and down until her death, which they undoubtedly viewed with satisfaction.

A little north of the equator, we experience a change of climate. For the first time since leaving Guayaquil on the way down I don real summer clothing. On Saturday, as hoped, we arrive at Panama, but so late in the day that the official who comes out to receive us merely takes the ship's papers, saying that on Monday we shall learn our fate. As we have "clean" papers and no illness on board we still hope to catch the Tuesday steamer from Colon to New York, but Monday afternoon are informed that we must do five days' quarantine. Great but futile is our wrath! Instead of sailing for New York we steam Tuesday morning to the quarantine station, which is not even an island, but an ancient tub, formerly used as a transport for cattle in time of war. A fresh coat of paint concealed the dirt and after breakfast on the *Mapocho*, which after all we were sorry to leave for a worse fate, we were transferred to the smaller craft, the *Medellin*.

The passengers now experienced an ordeal of a novel character. A room on deck had been arranged, with oval windows the size of one's head. Entering this room a dozen at a time, one person stood at each window face out, with cotton stuffed around; all cracks and doors being tightly closed we were fumigated for three minutes. The doors were then thrown open and we could take our departure at pleasure; wait for the smoke in the rear to become dissipated, or dash for the door without breathing until we were outside. We had been warned not to move our heads in the least during the operation, lest the smoke escape from the cracks to the injury both of eyes and lungs. It was a comical procedure but more sensible than the ordinary method of baggage fumigation, of which we were victims as well.

Since it is generally agreed that bubonica is carried mainly if not altogether by rats and fleas, is it not more important to fumigate the passengers than their baggage? for there

would surely be more fleas about the persons of first-class passengers than in their clothing, and no rats anywhere.

We were anchored close to a pretty island where cocoanut palms were growing and several cabins stood on stilts. On the other side, more distant, was the island, Taboga, the health resort of Panama; not that one is needed *now*, yet it affords a pleasant change from the city to the cooler breezes of the bay. We were fortunate in having passed three of our five days without expense on the *Mapocho*; the fee on the *Medellin* was \$2.50 a day. Our release came on Thursday with the arrival of a boat to carry us to La Boca.

After one night at the Hotel Central in Panama, where the others awaited the steamer, being convinced that there was less danger from yellow fever in Colon, I took the train across the Isthmus. In the annex of the Washington House I procured a room. There were mosquitoes, but not so many as in the previous June, when, according to the clerk, they were so thick in the dining room, in spite of the windows being protected by screens, that it was almost impossible to eat. One man said that he was afraid to take a deep breath for fear of swallowing a mouthful. The beds were protected by mosquito bars, or life would have been impossible. Two showers a day, an hour or two in length, were the average supply. Although the heat was not excessive and I was comfortable when doing nothing, with slight exertion I became very warm; all the while I felt extremely limp as at no other time in my life.

It was my good fortune to meet, both in Panama and Colon, Colonel William Black, an engineer in the regular army, who, for seven months, had been stationed on the Isthmus to observe the operations which the French were conducting in the construction of the Canal, in order that, if the United States made the purchase, we might be conversant with their methods as well as with the precise condition of the work.

An invitation from the Colonel to visit the Culebra Cut

was eagerly accepted. In the early morning it was a delightful ride to Culebra station, two-thirds of the way across the Isthmus. A hand-car took us around into the Cut, whence I was escorted to the top of the hill on the west side to view the region and the operations. It was very pretty to see from a safe distance the explosions of powder or of dynamite cartridges, the latter used for hard rocks, the loosened earth falling directly into open cars below.

There were seven terraces on Gold Hill opposite, the French having learned by experience that in this way land slides could largely be avoided, while at the same time opportunity was afforded to operate on four different levels at the same time. This, the highest point of the cutting, was the lowest anywhere in the ridge which forms the continental divide, here having an original altitude of 312 feet. The work was plain sailing as whatever plan for the Canal was ultimately adopted, a large amount of earth must be removed from this section. At the lowest point one-half of the necessary depth had already been attained, though but little of the width. While the French, on account of their lack of funds and expecting to sell their concession, were not then conducting operations on a large scale, to prevent the lapse of their contract several hundred workmen were continually employed. It was a pretty place, the hills, the luxuriant vegetation, and the brown cut below, a busy hive of industry.

My visit to the Cut was on Monday, the second of November, 1903, but though the gentlemen very well knew what was to happen on the third, no hint was given to me, or I might have stayed over for the next steamer, a delay which would have been greatly to my advantage.

On Tuesday, the day of sailing, as I was purchasing some souvenirs before the departure of the boat at noon, I got my first inkling that something unusual was to take place. I saw on shore a few soldiers, mere boys, from a Colombian gun boat in the harbour. Near this was a United States war-ship to prevent the Colombians from landing soldiers

to preserve order in their own territory. Of persons on the Isthmus, a few men only were responsible for the sudden Revolution which was hatched up in New York, most of the people even in Colon and Panama not being in the secret. After sailing I found that the officers of our ship, the *Yucatán*, were well posted on the matter, and was told that the revolutionists were waiting to proclaim a republic only until the departure of this and a French steamer which about the same time sailed for Cartagena.

The deep blue waters of the Caribbean, surpassing in beauty of colour the tints of the far-famed Bay of Naples, were especially admirable after the dark greenish hue of the Pacific. With good weather for the most part, the week's voyage passed too quickly. The nearer we came to New York the more unhappy I felt. Although some scientific observations had been made by the expedition, which I hoped might prove of interest and value, to return ignominiously to my native land without having set foot upon the mountain for the ascent of which I had so long planned, had made so elaborate preparations, had spent so much money in procuring supposedly necessary and valuable assistance, and had travelled ten thousand miles, was sufficiently mortifying to make me really ill. A few days after my arrival I had an attack of the *shingles*, the result, said my physician, of nervous exhaustion. After learning what was the trouble, a few days' rest with a little Rhus Tox put me on the road to recovery, though for some time I looked rather peaked. By way of consolation a friend one day remarked, "You wouldn't have been able to give any lectures if you *had* climbed the mountain," to which I indignantly rejoined, "Indeed I should! I should never have had the *shingles* if I had climbed the mountain!" as subsequent events have made obvious.

A remark which aroused still greater indignation was repeated to me by a friend who had met the scientist in New York on his return a month earlier. To him the latter had observed, "I think on the whole it was fortunate that Miss

Peck did not have an opportunity to ascend the mountain, for I don't believe she could have stood it." "Did he say that?" I cried, "when he was sick twice and I wasn't sick a minute! Well, now I believe that he *was* afraid," a point on which I had previously been dubious. Whether there was any logical connexion between the remark and my inference I leave to the masculine intellect to decide, merely stating the fact. As to the scientific observations, especially geological, a report of which, according to previous agreement, was to be presented to me by September, 1904, I may say that this, although repeatedly requested, has never been received; a statement that the figures resulting from the triangulation of Mt. Sorata or Illampu were 21,300 feet lacks further details, asked for but not supplied.

As soon as might be, I rallied my drooping spirits and began cogitating upon the possibility of taking the long journey once again, and making a genuine attack upon that tremendous mountain. I *could* not leave it as it was, having merely confirmed in their opinion those persons who had previously regarded me as insane.

After vain efforts in other directions to promote a second expedition, I repaired to my native city, Providence, where I first sought two gentlemen of wealth with whom I had long been acquainted. From them I was overjoyed to receive sympathetic interest and promise of aid. Others did not respond so readily, and the latest possible date fixed by me for departure arrived with the smallest sum I deemed requisite still deficient. On returning to my cousin's that night she inquired, "Have you got it?" "No!" I replied. "Have you given it up?" "I believe I will try another week," I said. Another week I laboured to no purpose. "What now?" she said. "I believe I will go any way. I *must* go. I think I can get along some way."

The next night, June 16, I took the steamer for New York; Friday I called on the editor of the *Times* and found that he really would subscribe for a series of articles. I had made an effort to form a syndicate of newspapers, but the

editors with one accord replied (if at all) that they were not interested in South America (or presumably in mountain climbing). Only the *Boston Herald* had promptly responded and even proffered the cash. With the *Times* in addition and the subscriptions from Rhode Island friends I had about twelve hundred dollars with which to make the venture. Most of my previous equipment had been sold in La Paz, so I must procure another. This was hastily accomplished and on Tuesday, June 21, 1904, I sailed again from New York for the ascent of the great Illampu, if less confidently than before, with good hope that, though alone, I might be able to accomplish more than the year previous. I certainly could not do less.

My plans were broader than in 1903. On that journey I had heard of other mountains which some persons thought were more lofty than Sorata; a volcano, Sajama, apparently of great height, near the border of Bolivia and Chile, and Mt. Huascarán in Peru, the latter said to have an altitude of 25,000 feet. If my funds proved sufficient I intended to investigate these mountains also, and I hoped to be able to reach the top of one of them.

After my long struggle to obtain funds and my few days of hasty preparation, I was thankful indeed to go on board the steamer, knowing that here I could have a little rest. I have often been asked about training for my mountain climbs. I heartily recommend such a course, but for myself, except when I climbed the Matterhorn, I have had no opportunity. On my four trips to South America, I have gone on board ship at New York a perfect wreck; each time, save in 1906, a little worse than before, having taken practically no exercise between voyages.

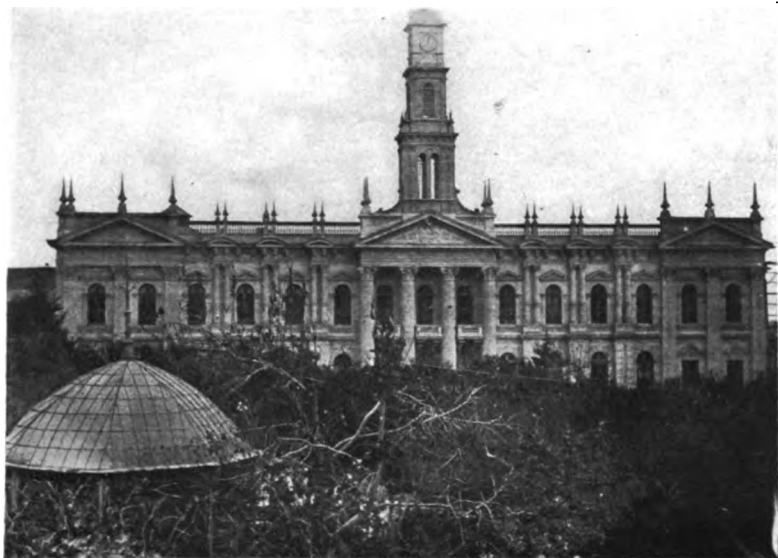
CHAPTER XII

SECOND JOURNEY TO LA PAZ

ON the steamship *Alliança*, June 21, 1904, I found myself in a large and goodly company, almost too large for comfort. Every stateroom was occupied and only by the kindness of the passenger agent was I able to go at this time. It was evident that the boats of the line, formerly adequate for traffic, would not remain so long.

Great changes had occurred since my previous trip. Now the steamship line was in the hands of the United States Government. The Panama Canal concession, its labour and its material, had been purchased from the French Company. A treaty had been concluded with the infant Republic, brought into being for that purpose. On this very ship were officials about to enter upon the great undertaking now to be prosecuted by our own Government.

On my previous journey, I had been so fortunate, one day out, as to be transferred from my quarters below to the bridal stateroom on the upper deck, where I rejoiced in the possession of three windows, instead of a single port-hole, and space to correspond. No such luck now! I was happy in not having to share my humble quarters with any one. Wednesday I was thankful to rest until time to dress for the six o'clock dinner. Being a pretty good sailor, I thought, although it was rather rough, that I should enjoy a salt water bath. Unfortunately, the room devoted to this purpose was at the very stern of the vessel, which I found to be going up and down right merrily. I gave one glance at the water swaying in the tub and fled precipitately to my berth, where I remained till the middle of the following forenoon. When ship builders construct or make over other vessels, if they will see that the bath rooms are amidships



New Capitol where inauguration of President occurred



Inauguration of President Montes, Bolivia, La Paz

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instead of in the stern, they will, I am sure, receive the heart-felt gratitude of all the lady passengers, who otherwise must sacrifice their morning ablutions for the preservation of their breakfasts and general happiness.

The forenoon following this slight unpleasantness, I looked down from above into the dining room to see the waiters placing some delicious looking watermelon on the tables for luncheon. "Ah," I said, "how fine! I am going to have some of that." A chorus of voices warned me that it was the worst thing I could possibly eat. I declared that I didn't believe it, and was going to try it any way. A fine large piece was brought up (I dared not venture below), which I ate with great satisfaction and no ill effects. I would, therefore, cordially recommend it to others under similar circumstances, or at least would advise them to be guided by their own craving for *simple* articles of food.

Although the watermelon was good, there was much grumbling and I fear a few swear words over the poor table and service. The ventilation or lack of it was such as to compel some of those who occupied inside rooms below to spend all of their nights in the small saloon above, which I was glad to do myself on two occasions, when closed port-holes made it desirable.

If accommodations on shipboard were poor, the company was good. At the captain's right sat Mr. J. F. Wallace, of the Canal Commission, chief engineer, in charge of the plans and construction of the great ditch. Opposite sat Col. Gorgas, now so well known for his excellent sanitary work on the Isthmus, of which he was to have charge as previously at Havana. Other officials were Major Le Garde and Captain Carter, Southern men who had had experience in Cuba of yellow fever and sanitation, and were, therefore, well qualified to take up similar duties in Panama. With several engineers, physicians, clerks, and secretaries there was, besides ordinary passengers, a company of twenty-five or thirty including three nurses, one of whom, Miss M. E. Hibbard, to be matron of the hospital, was a lady of large

experience, who had held a similar position in Cuba and on the hospital ship *Maine* in South Africa. Week by week Americans were flocking to the Isthmus, if not in official capacity, in search of contracts, or berths of one sort or another.

The Caribbëan was slightly ruffled, but the good luck which attends all my voyages was ours. On arriving at Colon, Tuesday, June 28, we learned that the steamship *La Plata*, from Jamaica, which docked the evening before, had encountered a very heavy sea by which the captain had been hurled so violently to the rail as to have both legs and some ribs broken, besides a cut on his head, so that his condition was then considered precarious. It was rumoured that several deck passengers were swept overboard, but of this we could not learn definitely. All were glad to go on shore again, and apparently every one took the special train for Panama. At the new station I was deserted by most of the passengers, the officials proceeding at once to the French hospital on Ancon hill above the city, where they were quartered for a while. As the *Loa*, which was supposed to sail on Thursday, had not come up to the dock, I was compelled to remain in Panama, which was not wholly a matter of regret; since the fear even of yellow fever abates when one becomes wonted to the word. Thus I had a better opportunity to see the old city while conditions of the ancient régime still prevailed.

In a rickety carriage drawn by rat-like mules, one rattled over the jagged pavement to the Cathedral Plaza on which the Hotel Central is situated. The outside rooms are large and airy, but \$3.50 a day seemed a pretty good price, in a small town of 25,000 people, for the accommodations provided; an uncarpeted room with the cheapest kind of furniture, and a very poor table. Yet, in this climate, simplicity is not amiss and the chief essential, a mosquito bar, being supplied, one would not grumble about the furnishings, if good food were provided.

The location of Panama is ideal, the small promontory

with water on three sides affording the best opportunity for drainage, then unimproved. The rainfall, though quite sufficient, is not half so great as at Colon, and the bad sanitary condition was inexcusable. The narrow streets, the pretty plazas, the market, and the picturesque old sea wall tempted one to stroll or drive, the rough pavement making the former preferable, except for the continuous heat.

Those members of the official party who had not been here before were agreeably surprised in finding conditions more favourable than they expected. The temperature is fairly comfortable, rarely passing 86°, by no means so bad as the hottest days in New York. The hospital and its surroundings were altogether charming. It is a drive of twenty minutes only from Cathedral Square to the uppermost building. The avenue leading from the entrance of the grounds is lined with royal palms brought from Algiers. The estate was beautifully laid out and the seventy-five buildings were constructed in a fashion well adapted to the climate. Mostly but one room wide, with windows on both sides, they had a sort of attic-like roof, not partitioned off, but with openings, protected by blinds, which afforded excellent ventilation. On the hill there is always a breeze, and from the verandas a delightful prospect of city, harbour, ocean, or low mountains; while the moon rising out of the Pacific gave a romantic glamour to the already charming scene. The need of a blanket on the first night was to many a surprising luxury.

I had never thought of Panama as a health resort. It had not been so characterised by persons who had spent a few days here in passing, or by those who read of the thousands of deaths which occurred during the building of the railroad and the French excavations for the Canal. The story of eighteen Frenchmen who came in a party, but one of whom survived a single month, though exceptional, is true and was not reassuring. Nevertheless, the enthusiastic young engineer, Mr. Le Prince, who had assisted in cleaning up Havana, and who as engineer was to oversee the sanitary

work on the Canal Zone, informed me that a health resort was what they proposed to make of this section. And no joke either! When I came this way again (if not too soon), the grand transformation scene would be accomplished. My *next* visit was too early, but on my last, in 1908, his prophecy had been accomplished, and stranger still, he had been permitted to see its fulfilment himself.

Thursday evening, June 30, there was a little excitement at the hotel in the form of a banquet given by President Amador to the members of the Congress of the Panama Republic in return for one tendered by them to him not long before. Representatives of the French and United States Governments were also in attendance. The dining room was handsomely decorated with United States and Panama flags and with wreaths and other elaborate arrangements of exquisite tropical flowers. The menu comprised many courses and various kinds of wine. There was music by a brass band and by a stringed orchestra, and after the banquet the usual speeches. Most of the gentlemen were in regulation evening dress, to which the robes of the Bishop and the white uniform of handsome Col. Gorgas afforded a pleasing variety. The sole English speech of the evening was that of Governor Davis, who, after expressing his thanks for his cordial reception, and for the co-operation received from the Panamanian Government, extended greetings from the oldest republic on this hemisphere to the youngest. It seemed a matter of congratulation that the United States had sent thither officials who were not only competent for the tasks before them, but who were cultivated gentlemen, a matter not always sufficiently considered in our dealings with foreign countries.

On Friday, July 1, I went on board the *Loa* at La Boca. There was nothing to do save watch the tide go out, leaving bare the mud flats half a mile wide, but the air was cooler and more bracing than in the city; there were no mosquitoes, hence no danger from fever, and the table and service were better than I had experienced since leaving New York.

Although involved in 1903 in the tribulations and uncertainties of bubonica, quarantines, etc., I had hoped that in 1904 all this would be over and the country again in its normal condition, if any other condition is normal. In New York I had been grieved to learn that the plague still prevailed along the West Coast; however, conditions were believed to be improving and there was no quarantine at Panama.

Yet in Panama came the first set-back. Guayaquil, so famous as a hot-bed of yellow fever and most rigid in quarantining against other ports of better reputation, had for some time not been receiving ships either way. This would save us three or four days, but alas! just a week earlier, the embargo was lifted and we were obliged to make the call at Guayaquil. The *Loa*, a sister ship to the *Palena*, sailed on Sunday afternoon, bringing us Thursday morning into the Guayaquil River. Having paused at Puná for the pilot and the quarantine officers, we were allowed to go up to the city. Here again we were inspected; that is, the ship's papers were carefully lowered in a basket to the officials who had come alongside. All have anxious moments until the announcement is made that, *mañana*, after being well fumigated, we may go ashore. The information was greeted with applause. This time it was the ship and not the passengers that was to receive the treatment.

In the afternoon came alongside a boat equipped with a Clayton apparatus, machinery and pipes through which fumes of sulphur were poured for twenty minutes each into several holds. Fearful for my films and also for the eatables stored in one of my boxes, I had had that brought up on deck, so that I was able to view with equanimity this operation.

In 1903, I did not venture ashore in Guayaquil for fear of the yellow fever, but this year, bolder grown, I went with several others and rode about the town in the little tram-cars drawn by small donkeys. The houses are mostly built of reeds, even the few that are three stories high; the better ones

are plastered so as to look quite stately and massive, the poorer ones omit the plaster, or the thin coat is peeling off. It is not surprising that a large part of the town burned up some years ago.

Saturday afternoon the transfers of freight were concluded, but the local officials decided that we needed another fumigation to remember them by. The boat with the Clayton apparatus accordingly came out again in the evening and gave the ship a second dose of sulphur, the two causing us to lose two days' time; for not getting out of the river until ten Sunday morning, our arrival in Paita was delayed until Monday.

Poor Paita! We had thought the place rather forlorn the year before. It was still dry and looked the same, but in the meantime it had been more than decimated by bubonica. The epidemic was practically over, still no freight was received and the natives of the lower classes were not allowed on board. They rowed out and looked at us, and shouted, but no hats, fruit, or knick-knacks could they sell, though after being shut up so long they doubtless needed money badly. Freight was discharged here and a few first-class passengers were taken on, probably from Piura, a large town farther back. Then the holds were fumigated again, the Ecuadorean operation evidently not availing for Peru. We are happy by this means to escape quarantine. Better a few hours' sulphur fumes than five or ten days' delay. We are glad, too, again to reach fresh bracing air and cool weather. Calling at the usual ports Etén, Pacasmayo, and Salaverry, on Friday we arrive at Callao.

A little below Salaverry we enjoyed an unusual sight, the beautiful snow-crowned head of Huascarán peeping over a slight depression in the Black Range.

It was my first glimpse of the summit of that magnificent mountain, a hundred miles distant, which was to be for me the scene of many toilsome efforts, of danger and disaster, but in the end of glorious triumph. The lofty ridge I saw was the very one of the twin peaks upon which at last my

feet, with those of the two guides, were the first of all the world to tread.

The spurs of the Cordillera which here come down to the sea are so arranged as to give the appearance of three ridges, one behind another, the last, the Black Cordillera, a jagged, and apparently almost perpendicular wall, which from the sea I estimated to be from 15,000 to 18,000 feet high; the men on board, including the captain, placed it at 12,000 feet, or a good deal less. Naturally I was pleased to learn later in Lima that my guess was exactly right. It was evident that the white peak of a range still farther back must be of tremendous elevation to appear above the high black wall in front.

So hazy is it along the shore or so cloudy among the mountains that the captain of the *Loa* informed me that he had had a glimpse of Huascarán only three times in his twenty years of sailing up and down the coast. Yet as he often passed here at night, this was not wholly due to bad weather.

With but one day's pause at Callao, we sailed for the south Saturday evening. On Tuesday, July 19, we arrived at Mollendo, just four weeks from New York, and in four days' less time than the year previous. A kindly German Peruvian, Mr. Guillermo A. Wagner, assisted me in the disembarkation so effectively that we two were the only ones who caught the train and escaped the misfortune of a day and night at the port. Happily the bubonica was no longer prevailing there and we could proceed as before to Arequipa, instead of crossing the desert from Quilca as on the way out.

A serious stagnation in business, an after effect of the plague, necessitated my remaining in Arequipa until the following Tuesday waiting for the then weekly train to Puno and La Paz. The long railway ride continued from seven in the morning until dark. I had hoped for the company of Mr. Wagner part way, as he was expecting to go on to Cailloma, a silver mine, which I desired to hear more about, but he had been detained by business.

This mine, of which Mr. Wagner was superintendent, is situated at the great altitude of 15,800 feet, just about that of the summit of Mont Blanc; a mill is 1,200 feet lower. The rich veins of silver, worked long ago by the Spaniards, who extracted large quantities of ore, were now owned by an English company which was shipping high grade ore and bullion to Europe. Not far away is Villafrío Lake, one of the most remote sources of the Amazon, and one of the nearest to the Pacific; for the Cailloma River flows into the Apurímac and later into the Ucayali which unites with the Marañón to form the mighty Amazon.

At Puno it was pleasant to meet again on the Coya the Scotch engineer, Mr. Creighton. I was favoured with a nice large stateroom which I willingly shared with an American lady (and her kitten), who had been less fortunate. Of the long journey from New York to La Paz, more than five weeks, the best part was the last, the delightful day's sail on the little Coya across Lake Titicaca. Continually greater admiration was excited by the glorious range of snow-clad mountains to the east and south. One after another appeared in the distance till we were convinced that the culminating grandeur of the Western Hemisphere lay within our vision. Proudly pre-eminent in the row of stately giants was Illampu. Eagerly I scanned its outlines through an excellent field glass. More massive than ever seemed its great buttresses, more immense its glaciers and snow fields, yet more precipitous and impassable the higher slopes from this side,—the northwest. Yes, evidently Conway and Maquignaz were right when they said that the ascent must be made from the south, and I must follow in their footsteps.

With profound satisfaction I had already learned that the weather this season was better than in 1903, clear and cold, which would have brought the mountain into excellent condition for climbing. The railway from Guaqui to La Paz now continued to the edge of the *alto*, where carriages were in waiting to take the travellers below. Unluckily for me there were on board the train some prominent citizens

just returning from a long absence in Europe. Many of their friends, in accordance with genial South American custom, had come up to meet them, and every stagecoach and carriage in La Paz had been pre-empted. In consequence of this I was compelled to walk, which was no real misfortune, as I was sadly in need of training for the great task before me. Moreover, two gentlemen had come to meet me, one, the Austrian upon whose aid I had been relying and to whom I had telegraphed my approach, the other, a stranger who had seen my coming heralded in the newspaper and thought he too might render assistance. This was a cheering omen, so in the best of spirits I walked down with the gentlemen to the city below, discussing meanwhile plans for the peaceful conquest of Bolivia's mightiest fortress.

It was Thursday, July 28. I desired to set out for the mountain during the week following, as August is probably the best month for climbing in Bolivia and I wished to have it all for the enterprise. But having already learned that on the sixth of August the newly elected president of the Republic, Señor Montes, was to be installed, naturally with suitable festivities, I was not surprised to hear that there would be no chance of getting off until Monday, the eighth.

Once again settled in the Grand Hotel Guibert, though feeling quite at home, I sadly missed most of the good people who had kindly extended hospitality or cheered me with their sympathy and good company the year before. In these South American cities there are apt to be frequent changes among the foreign residents, and Mr. Sorsby, the United States Minister, alone remained.

However, there was plenty to do. The matter of first importance was that of assistance or escort. This seemed to be Hobson's choice, as the Austrian, Mr. Victor Sintich, was the only discoverable man in the place who had had any experience in snow climbing; he, indeed, not so much as I supposed, none at all in the Alps; merely two or three excursions on the mountains here, with no complete ascent. It seemed that an additional man might prove of value and I suggested

the German-Chilian who also had come up to meet me and who seemed anxious for a job; but Mr. S—— would none of him. Did I wish for the Chilian I might take him and he would withdraw. Assistance in the way of cholos and indians would be procured at the *finca* of Señor Juan María Zalles, the gentleman who had offered thus to aid me in 1908, but otherwise Mr. S—— declined helpers. What the gentleman lacked in experience he obviously made up in confidence. How far the confidence was justified time alone would show. All I could do was to go ahead and hope for the best.

Meanwhile came rumours of unrest among the indians, hence the desirability of an escort of soldiers. It was said to be a bad time to go into the country on account of the change of administration which would include sub-prefects, officials corresponding to our mayors, but appointed by the central Government. Further information to the effect that these officials would not be changed before December was reassuring.

Next I heard of a recent proclamation by the Government that henceforth the indians should not wear the picturesque trousers imposed upon them by the Spaniards nearly four hundred years earlier; nor appear barefoot in the plaza. So unwarranted and foolish an interference with harmless antiquated custom, being, as I was credibly informed, no idle story, gave me some little disquietude. Revolutions have been provoked by less. However, it subsequently became evident that this regulation, if ever made, was never enforced, for in 1908 I found the barefoot indians still in their old garb.

Then came a story of some pilgrims on the way to the shrine of Copacabana being robbed and murdered near Chilibaya, a town not far from our route of travel. Further I was assured that indian cannibals were actually living within five miles of La Paz. The Austrian, no less than my Swiss guide, Maquignaz, seemed to favour the idea of soldiers. To the American Minister, accordingly, I betook myself and

broached the subject, but by his advice concluded that on the whole it was not worth while to make a request of the Bolivian Government and that we would take our chances, unprotected, with the natives.

During the ten days' delay in La Paz I found time for a single tramp with the specific object of visiting a celebrated gold mine called ChuquiagUILlo, about a league distant. Not far down the valley a branch cañon leads up to the left, a surprising revelation, of which the contours as seen from above give no hint. It is evident that a journey down this valley, that of the La Paz or Choqueyapu River, would be full of unexpected vistas, picturesque beauty, and romantic grandeur, since it passes directly along the base of magnificent Illimani. The vivid colours of the cañon walls with their strange fantastic outlines are thus in striking contrast to the granite rocks and dazzling snow-fields far above and the luxuriant verdure of the Yungas Valley farther down.

A glimpse only of such wonders did my brief excursion disclose. An hour's walk brought me to the home of the German superintendent of the mine who with his wife gave me cordial greeting. After breakfast the gentleman took me out to see the men and women at work. The immense alluvial gold deposits in this region indicate the presence of large veins in the mountains above. Illimani is known to contain an abundance of this metal, of which more or less is brought down by all of the streams descending from the mountain.

A portion of one of the ten days was devoted to a matter of interest of wholly different nature, the installation of the newly elected President, Ismael Montes. This ceremony occurred in a new building not then completed, which we should call the Capitol, as it is the place of assemblage of the two houses of Congress, the Chamber of Senators and the Chamber of Deputies.

Obtaining a seat in the front row of the gallery of the Senate Chamber, I could observe well the proceedings and even take a photograph, through the kindness of the after-

noon sun which was streaming in the windows facing the plaza. The foreign Ministers were seated upon the platform, the Senators on the floor below. The moment of especial interest was when the departing President, General Pando, divesting himself of the insignia of office, chain, and ribbon sashes, placed them over the shoulder of his successor.

CHAPTER XIII

ASCENT OF ILLAMPU. ALMOST BUT NOT QUITE

THE equipment for my expedition brought from New York was similar to that of the year preceding, except for a few omissions. The idea of attempting to make use of oxygen was necessarily abandoned. I had now a single mercurial barometer and one hypsometer. A few articles of importance were obtained in La Paz. A pair of *steig-eisen* or crampons (climbing irons such as are used in Tyrol), belonging to Mr. Sintich, served as model for two pairs more; my ice axe in like manner was twice duplicated. Mittens of vicuña wool for milder temperature and of vicuña fur, two thicknesses, for the coldest weather were ordered of knitter and furrier. I made for myself a pair of bed shoes of the same fur to slip inside the eskimo boots which were to keep my feet warm at night. To the soups, tea, chocolate, grape-nuts, etc., which I had brought, were added a few other eatables, canned meat, raisins, and sugar; also three bags of coca leaves for our own use as well as for the indians, and four quarts of alcohol, three of these (I blush to tell the tale) cheap stuff for the indians to drink (as with a small draught night and morning they are kept in good humour) and one of better quality to light the fire in our kerosene stove. For the poorer sort I was not responsible, Mr. S—— purchasing the kind to which he said the indians were accustomed. That it must be furnished I was assured. If I had supplied it the year before, no doubt, I was told, the indians would have gone up and the whole expedition been saved. But of this I had not previously been warned.

To avert any superstitious prejudice on the part of the indians against the ascent of Sorata, such as Sir Martin Conway believed to exist, on the advice of a good Protestant

missionary who had made the suggestion after the fiasco of the year previous, I ordered the construction of a wooden cross, designed to be placed on the summit of the mountain, should we arrive there. Though it failed of its destination, it may have had a favourable influence, as not the slightest objection to our purpose was anywhere manifest.

On Monday, August eighth, as we had planned, we set forth from La Paz for Mr. Zalles' *finca*, Chiarhuyo, on the lower slope of the mountain, Mr. S——, myself, the arriero, and his small boy, each mounted on a mule, two animals carrying cargo as they say, and two others apparently going along for company, but really to change off when any of the beasts were overdone; not so imposing a cavalcade as in 1903, but destined to accomplish more. Of the two roads to Umapusa I had urged taking the upper or shorter one, hoping thereby to gain a day, but there were disadvantages. The road was rougher, more hilly, less frequented, possibly less safe, and the distance, seventy-five miles, could not be divided in the middle. We must stop for the night at *Tambo de Perez*, thirty miles from La Paz. Perhaps as a beginning that would suffice.

Desiring to set out at seven, we got away at nine, an hour and a half better than before; for I was prone to measure everything by the year previous. *Then*, the first day, we only reached Cocuta, five leagues distant, for leagues here are the standard, never miles. And leagues seem to be of variable length, some much more than three miles; as a rule a league is about what one will do in an hour. The distance from the city on the floor of the great cañon up to the edge of the *alto* being accomplished in that time, we travel over the plateau in a course nearly parallel to the lofty mountain range on our right, but gradually coming nearer. At first glance our way seems fairly level, but we presently realise that we are generally going up or down very gentle slopes where the ends of long ridges from the distant mountains are flattening out into the plain.

At Cocuta we delay but half an hour for rest and break-



Chiarhuyo



Lake San Francisco

U of M

1760

fast. We are late, so that little is to be had; but soup and eggs refresh us for our onward journey. Beyond Cocuta we leave the well trodden way to Machacamarca and Achacachi for the upper road leading more directly to Umapusa and Sorata town, having thus a finer view of the mountains. The afternoon slowly wanes. I realise that I am not yet hardened to long mule rides and towards night dismount for a walk. At first I can hardly move, but presently get limbered up and leave far behind S—— who is leading the horses. The arriero and the rest of the train had gone on ahead. In half an hour I feel like riding again, but perceiving a ridge ahead I think it will be good practice for me to walk up. To my great astonishment I find this is too much for me. My head swims and I am compelled to sit down a while; whether a touch of *soroche* or exhaustion I do not know, but probably a combination of both. After five minutes I am hardly able to stand, but when S—— appears I remount and we proceed.

In this district houses are scarce. About sunset we reach a dwelling which looks as if it might be a *tambo*, but no person is visible. I hear shouts from the rear, yet whether they are for us is uncertain. As there is no other dwelling in sight which appears like an inn, I suggest to S—— that he pause here to inquire; he can easily overtake me. I had already discovered that, in common with many of his sex, S—— does not take kindly to suggestions, so when he pays no heed, I do not venture further. Meeting an indian woman some distance beyond we inquire where is the *Tambo de Perez*. She points to the house we have passed. After a little hesitation S—— concludes to return and inquire. As he does not reappear I follow and on entering the patio find arriero and all there. What a blast then did Mr. S—— give him for not watching out for us or having some one else do so! enough I thought to waken terror in almost any soul; but later S—— informed me that this was a mild reproof in comparison with what he had delivered before my arrival. I concluded that it was just as well I had not come earlier. A

good sized room of the usual sort was placed at our disposal, no furniture save two adobe beds, one at each end of the room; the arriero sleeps on the floor. We inquire about food. At the tambos on the other road fair meals were provided, but here nothing; no soup, no bread, no eggs; so we make shift with our own stores.

In the morning we are up betimes and get away by half past seven, an exceptionally early hour. As we have a long day's journey of fifteen leagues to Chiarhuyo, I try to impress upon the arriero the importance of going rapidly in the cool and lovely morning while the mules are fresh; but they all seem unwilling to hasten until towards night, and our progress is by no means satisfactory. Far ahead we perceive a hill of unusual shape; it is hours ere we reach it. A great ridge comes down from the mountains at the right. Slowly approaching and surmounting it we perceive another, then another. In the middle of the afternoon, from the top of the third we descry in the far distance the lake, the marshy plain, the site of Achacachi and Umapusa. No Chiarhuyo to-night. We barely reach Umapusa before it is quite dark. In the familiar *tambo* I take my place on the same adobe bed as last year, but miss the excitement over Maquignaz's expected attack of the indians which failed to materialise.

As I feel the need of a little more rest and sleep, it is arranged that S—— shall get up early and go on to Chiarhuyo, an hour distant, so that the major domo there may send at once to Achacachi for provisions, shoes, or anything that may be required for the porters, in order to set out for the mountain the day following. Going on later with the arriero, we soon meet an indian thoughtfully sent by S—— to conduct us to our destination. The major domo, Garcilaso, we find far more civil and obliging than the surly indian at Umapusa, and all things promise well.

Two rooms are placed at our disposal, one of which boasts of a carpet, a table, and two chairs. S—— bargains for indians at one *bolivian* (forty cents) a day. Garcilaso is to



First camp, Illampu



Site of camp, Illampu, 15,300 feet

370

have two. This man is the brother of the cholo, unfortunately now absent, with whom I had talked about an ascent the year before. We had purchased in La Paz two dried sheep (*chalonas*) and now bought a fresh one, at the cost of two *bolivians* each; these for the use of the indians. We were to set out on Thursday at ten.

The final preparations were made. We had a good night's rest, coffee in the morning; but no one would go until after breakfast, *almuerzo*, which means a meal of soup, with meat, etc. However, the major domo knew, he said, a shorter way than the one Maquignaz had gone; he, too, had been with Conway and knew the place of his camp and asserted that we could go there in three hours.

At one o'clock we began the journey by ascending a long ridge; on the way was an occasional house, and many llamas and donkeys grazing. At an altitude of over 16,000 feet, we cross the brow of this great ridge of Mt. Sorata whence we come down towards the little green Lake San Francisco, round the end of a bluff, and descend into the narrow valley, memorable for the wretched fiasco of the preceding year. To the upper end and still higher we advance till we reach a shelf still more sheltered and better covered with grass, a stream coming down in the corner from the glaciers above. This is an ideal camping place with good pasturage for the mules; the site, Garcilaso says, of Conway's first camp. Already higher than I had been before I count this a favourable omen. Our tents are soon pitched, a fire is made of brush, dinner is prepared and eaten. Some of the indians already having retired, I take a flash-light picture of them in their tent. Although 2,000 feet above the *finca* where the preceding night, at an altitude of 13,400 feet, it was two degrees below zero, Fahrenheit, we pass a comfortable night with the temperature hardly freezing.

However we try, to get an early start in the morning is impossible. First we have tea; then the indians insist on making soup, a lengthy operation. When concluded, we partake also, for it is much better than our *erbswurst*.

Meanwhile we arrange the packs for the indians to carry, leaving the large tent for them and the arriero, taking with us the smaller one of silk. About ten o'clock with porters and baggage we proceed up the terminal moraine of a glacier which comes down in the right hand corner between the steeper walls of the valley. No snow is visible for a long time and none at all in our track. Stones and gravel form our pathway among rocks and boulders. It is tedious but not difficult, only what three men could have done just as well the year before. It would have been *work*, but after six or eight weeks of idleness a few days' work, one might think, would injure no one.

Above 15,000 feet a sensible person does not attempt to travel so fast as below. In fact, it is impossible to do so. The indians halt frequently, but in spite of this and their burdens, about fifty pounds each, they can go faster than I with nothing. Unfortunately it is three years since I have done any climbing, or had training of any sort save my six-mile walk to the gold mine near La Paz. We nibble chocolate and bread. We drink water. With no long halt we push on to the glacier itself; then up the lateral moraine on the right. S—— had already suggested a good place to camp, and G—— seems uncertain of the way, but I urge continuing to the farthest point possible, the end of a rock cliff separating this glacier from a large one farther east. Arriving at this point towards five o'clock, I propose pitching the tent, but S—— declares there is not sufficient room and will not try. Two indians of more venturesome spirit than the rest remain with Garcilaso to assist on the ice above, while the others hasten down to the lower camp. Before their departure, however, a ceremony of the morning is repeated. A tin cup is half filled with alcohol and an equal amount of water is added. Of this beverage Garcilaso takes a sip, then each of the seven indians. The single cupful suffices for all; although alcohol is considered especially injurious for mountain climbing, it is evident that this slight quantity could do no serious harm. It made them good-natured



Second camp on Illampu



Miss Peck under snow at Second camp

U of M

1701

and they probably ran down to the tent in an hour. At this altitude there is a tremendous difference between going up and down, and as much more in whether one goes free or carries a heavy pack.

After supper the temperature and pulse records are taken; the sleeping bags are spread in a row, the heads against the rock wall. Mine is the best, having a long canvas flap which I pull over my face with no fear but that I shall get plenty of air, and feeling that I can do very well without the tent if the rest can. I am tired enough soon to be sound asleep; not heedless of the multitude of stones about, apparently fallen from above, but trusting that in this dry season there is no danger.

The season, however, proves to be not so dry. In the night I awaken. Snow! That is bad for our climb and bad for the others here. I am as snug as a "bug in a rug," being well protected by the flap. The two other bags have no flap. The Indians with their ponchos are worse off. Mr. S——, in spite of woollen hood and cap, gets very damp around the neck,—just retribution for not trying to set up the tent. It continues to snow after daybreak; perhaps six inches fall. It is useless to rise early as nothing should be done in fresh snow. When the sun has come out, before creeping from my sleeping bag, I suggest to S——, who is already up, that he take a photograph of me, but as I did not put my head out it is impossible to perceive in the picture where I was located.

As S—— dearly loves his own way and requires much consideration, I meekly inquire (though having already determined) what course he would advise that we pursue. He replies, "Go back to the *finca*." To this I demur, saying that we can at least wait a day to see what comes; if good weather we can advance on the morrow. This course being agreed upon, after a late breakfast we make a little reconnaissance on the glacier in the direction we propose to take, partly to give Garcilaso practice in the use of the rope and in ice work. One little adventure showed the value of the

practice. In crossing a snow-covered crevasse one of my feet went through. Hearing my exclamation S—— and G—— were coming promptly to my rescue. I hastily shrieked, "No, no!" which made them pause. In a few moments I succeeded in pulling my foot out and we went on when I improved the opportunity to warn them of the danger of such a course. I was obviously on a frail bridge over a crevasse, not knowing how wide or deep. If they had come near enough to help me, we might all have gone through together, possibly to a distance of one or two hundred feet, in which case all would have perished.

Returning from our little promenade, S—— decides that perhaps there is room enough to pitch the tent after all. By our united efforts some rocks and stones are cleared away to make a better floor, and the tent is set up; but for me the night was much less comfortable than in the open. In 1903, the pole of my silk tent was in the middle. It had seemed rather in the way, especially with an odd number of persons. Now I had brought a tent with the pole at the entrance. In arranging the sleeping bags, S——, thoughtful for my comfort, without consulting me, had placed mine farthest back under the eaves. The result was that I nearly smothered and had very little sleep.

The morning was fine and we early began preparations to move our camp to what appeared to be a fairly level spot above a great rock in the distance. We were able to set out soon after nine, three of us, S——, G——, and myself, being tied in the usual manner with the rope, the two indians merely walking at the side, holding it with one hand, as they might wish. As my shoes were fairly well nailed, I had each of the indians wear one of my *steig-eisen*. On account of the large quantity of baggage that must be carried, contrary to my previous custom and intention I assist a little, taking my 4 x 5 camera, an aneroid, and two small bags; not very much, but a good deal for me, as to carry anything depending from my shoulders has always been very wearisome to me, and I long ago vowed, after carrying a camera up a



Mt. Sorata, Illampu, from Second camp



Glacier, Illampu

1870

small mountain, that I would never do such a thing again, as I need all my strength for the climb.

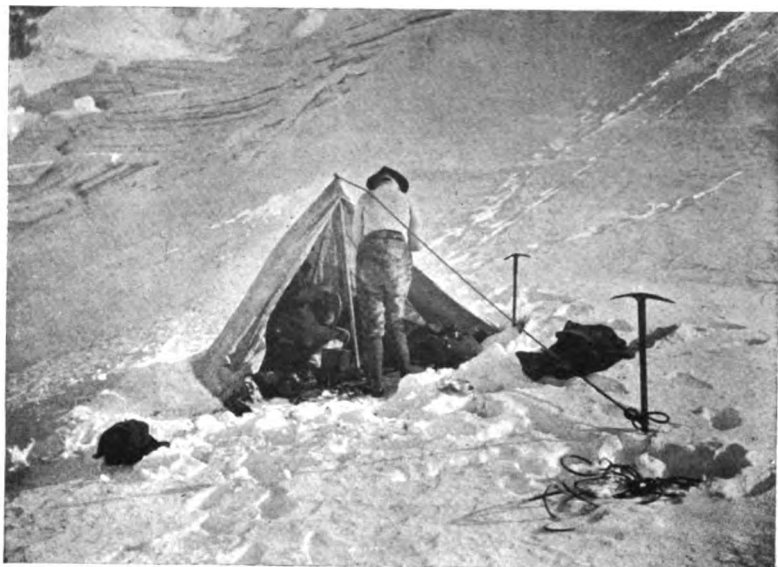
It is easy glacier work, the only difficult bit being at the beginning, the climb up the nearly perpendicular wall to reach the surface of the ice. Some steps had been cut the day before and as one could not fall far no one objected to the effort. All of the men seemed anxious to make long and frequent halts to rest their shoulders from the burdens, but in spite of these about one o'clock we reached the spot above the big rock, from below selected as our destination. It was so early that I urged merely taking a good rest and luncheon, and then continuing an hour or two farther. S——, however, absolutely refused to go on. He declared that I had no pity for the poor indians with their heavy burdens, that they would not go anyway, that we ought to camp early and that we could, on the morrow, reach the top from here, if at all. To me this was by no means certain. Our camp ought to be at the highest point possible. Though it did not look very far to the summit, who could say what difficulties might be met!

The selection of a site for the tent within thirty feet of a great crevasse and almost in the same line, did not meet my approval, but I let it go. After pitching the tent S—— proceeds to reconnoitre above. I follow for some distance, but soon return, thinking it wiser to reserve my strength for the more arduous labour of the next day. The afternoon gave opportunity for examining the instruments, boiling the thermometer, etc. My mercurial barometer had unfortunately been broken the second day out, the arriero failing to heed my remonstrance on the way he had tied it among the baggage. The two aneroids gave an altitude of about 18,100 feet. The reading of the hypsometer, 82°.5, Centigrade, would at a conservative estimate indicate quite as much. As Sir Martin Conway gives the height of his second camp, in the same place as my second, as 18,000 feet, the altitude of my third camp was very likely greater than the height mentioned.

In planning for the morrow we consulted at what hour we should set out. Mr. S—— at first proposed eight, then seven. This, in my opinion, was too late, though I did not care to emulate Conway's example, who went forth at two A. M., as is the custom in Switzerland. In these regions it is cold indeed at that hour, and his guides' feet were frost bitten. I did not desire that fate, but believed we could safely set out by daybreak.

Taking an early supper, by six o'clock we were settled for the night, save for the pulse and temperature observations. My pulse record had been gradually rising from 60 on ship-board to 72 in Arequipa, 88 in La Paz, and 120 here. My temperature, in La Paz a degree below normal, was now a degree above.

This time the indians were in under the eaves and I was nearest the door. I had plenty of fresh air, but still I wooed Morpheus in vain. The nerves of my thighs twitched, the upper surface was cold. For the rest I was as warm as toast, which may not seem strange when I relate how I was protected. Three union suits of Jaeger underwear, two of light summer weight, but all of wool, one ankle-length pair of woollen tights, with four pairs of woollen stockings made eight thicknesses over the lower half of the legs; my feet, in addition to the stockings, were encased in eskimo hare boots with vicuña fur socks inside. No wonder my feet were warm in spite of the fact that during the night the minimum thermometer registered 20° below zero, Fahrenheit; rather cool weather for tenting on the snow, especially at this altitude where, with about half the air to breathe that one has at sea level, one feels the cold more than one would in the Polar regions at a much lower temperature. Above the knees I was less protected, though in addition to the four layers aforesaid there were light flannel knickerbockers and eskimo trousers. Two flannel waists, a sweater, and the eskimo coat, with the four light blankets and canvas cover of the sleeping bag, made me almost too warm, except for the thighs. For these I presently tried a Japanese stove.



Third camp, Illampu, Miss Peck



Flash light of Indians in tent

U of M

May

Another, previously loaned to Mr. S——, he had unluckily left below. The single stove worked well, but by the time one leg was warm the other was cool. Rubbing also proved ineffective. I twisted and turned but sleep refused to come. Doubtless the altitude had something to do with it, though sleeplessness with higher pulse and temperature were my only symptoms of *soroche*.

It was brilliant starlight, fortunately with slight wind. If I slept at all I did not realise it. I should have been glad to start at any time and finally attempted to rout out the indians. Their slowness in getting up, the time necessary to thaw Garcilaso's boots, to melt a kettle of snow and boil it for tea, was exasperating. When at last we set out it was nearly eight. Though the sun had long been shining, it was still so cold that for the first hour even the four pairs of stockings failed to keep my feet comfortable. Then it grew rapidly warmer and less clothing would have sufficed. The snow naturally became softer, yet we did not sink in enough to make the way difficult or dangerous, not more than from three to six inches.

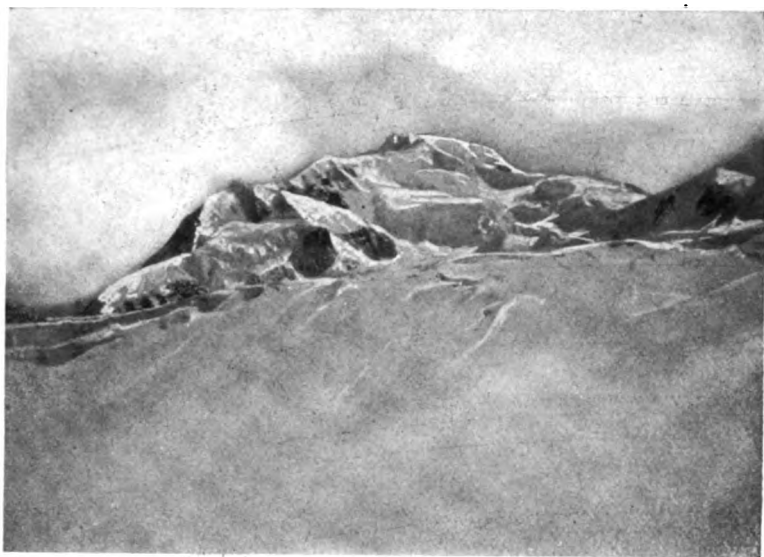
On the south side of the great mountain *massif* the ridges and hollows are almost wholly covered with a snowy mantle down to 17,000 feet, in some places lower. Though beneath a tropical sun, it seems a region of the Pole. The brown plain far away beneath is hardly to be noticed, while thrust upon our attention is the bristling range of rock and ice leading to the distant south, the ridge pole of the New World's roof, on either side of which the melting snows should go to either ocean; but strange to say from both they seek the far Atlantic by way of the lengthy Amazon, unless perchance the streamlets which flow into Lake Titicaca ultimately find their subterranean way to the Pacific, as certain lately observed phenomena seem to indicate.

Before proceeding directly toward the summit we rounded the end of a long ridge, all the time going upward. Considering our elevation, we advanced with a good degree of speed, though with frequent halts for breath. S——, at

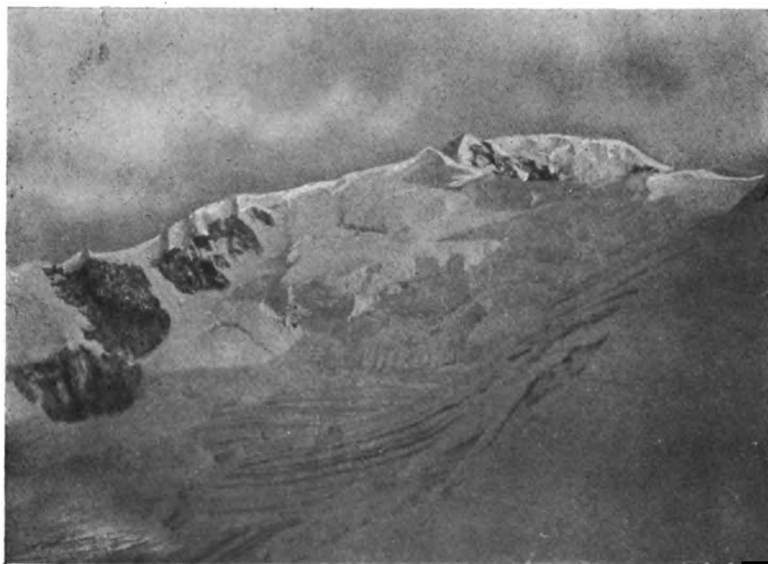
one end of our long rope (80 feet), was leading; G—— came next, as better able to support S—— in case of a slip or fall, while I brought up the rear, the two indians remaining below in the tent. After rounding the end of the ridge we proceeded along its slope in the direction of the summit, having a great glacier basin below on our right.

Slowly we approached a ridge at right angles to the main range, extending but a short distance from it. Beyond this *arête* was the glacier up which I judged from his description that Conway had proceeded, apparently far below the height we had now attained. The only method of advance was to ascend this *arête* and then circle round to the left to the foot of the final peak. The *arête* was practicable in but two points, one straight ahead the other at the right farther away from the summit of the mountain, but with a more gradual slope. Up to this time, although I had offered no suggestions, S—— had taken a course in accordance with my judgment; but now I was sorry to see him turn off to the right instead of going straight up, which I had concluded was the proper way. In making a traverse across this steep incline in the heat of the day when the snow was soft, there was great danger of starting an avalanche. It did not look like a nice place for a slide, as there was many a big crevasse in that great hollow below, to say nothing of various walls to drop off of on the way down. However, I thought I could stand it if he could, and being so far in the rear that presumably I could not judge so well, I discreetly followed without a word.

The traverse in a diagonal went well for a while, but presently S—— came to softer or deeper snow, sinking in nearly to his waist. After some floundering he sent G——, who was lighter, ahead in his place. Garcilaso did better, at length reaching the edge of the *arête* and peeping over. I did not understand what he said as he retreated, but what he saw was evidently not to his liking. He declared it impossible to proceed either on the other side or back along the summit of the *arête*. So far we had made only standing



Illampu, from above Third camp



Illampu, still higher

1990

halts and eaten chocolate from our pockets when we chose. It was after one, high time for luncheon, which I then suggested. After this had been disposed of I was ready to proceed when S—— to my great astonishment announced that he was not going farther. He asserted that a few clouds which had come up threatened snow, it was so late that we could not possibly reach the summit in time to return to the tent before dark, and he did not propose to risk his life for any money. I argued that clouds often came up in the afternoon, and these did not look to me as if they would bring snow; as a matter of fact they did not. I urged that we should at least go to the top of the *arête* whence we could see what was before us all the way to the mountain's top. It was evident that we must descend a little from that point and if this was impracticable I wished to know it, in case of another try either the next day or the next year. S—— declared even this to be impossible and would not proceed one foot. I insisted upon going anyway, whereat S—— asserted that if I reached the point indicated he would give me 500 *bolivians*, the fee which he was to have for his services. If he thought this would deter me he was mistaken. It was a strong additional inducement.

At this time I was tied at one end of the rope and Garcilaso at the other, so I set out expecting him to follow. I made a direct traverse across the slope not more than fifty feet below the top of the *arête*. Above, for a considerable distance, the snow had slipped away, leaving the almost perpendicular ice entirely bare. Farther on there was a considerable crevasse above, then a smooth slope all the way up which I planned to go; beyond this in the same line the crevasse again appeared, but narrower. As I was carefully advancing, at every step thrusting the head of my ice axe strongly into the ice above, I heard a little swish, then a shout from the others calling me to return. I recognised the sound, it was alarming: a little slip of snow and they apprehended more. There was, indeed, danger of an avalanche which might carry me a thousand feet below. In that case,

unless my toboggan ride ended in the depths of some crevasse, there would be a chance, though a small one, of getting out alive, as there was very little snow above me. Furthermore, I had already observed that the sun had just passed to the other side of the ridge and this slope was now an inch or two in the shade. Every minute, therefore, the danger was diminishing, and that was well; so without a pause, or a backward glance, I went slowly onward.

Arriving at the point where I should turn up the slope I advanced with greater difficulty. The angle was at least 55° , perhaps 60° . Having previously been on measured slopes of 53° and 56° which I had not over-estimated, my judgment that this was the steepest slope I had ever been on cannot be far wrong. I could take but three steps without a pause. In this ice slope, with its thin covering of snow, my axe now failed of firm hold; yet with my *steig-eisen* I felt comparatively safe. Testing the snow before me with my axe used as an alpenstock, it went down through into nothingness. Glancing to the right and left I perceived that I was in line with the open crevasse on either side. Looking down I saw a crack in the snow just at my toes. I had known that here must be a snow bridge; evidently the bridge was not solid.

How I wished now for the Swiss guide I had on the Jungfrau, who led me across many a yawning gulf and cut steps for three hours up the last *arête*! Yet, as my footing seemed solid, I did not at once desist from my efforts. If I could get a firm hold with my ice axe above, I might venture to try to step across. But the axe was dull and my muscle unequal to the task. Turning, then, for the first time to summon to my aid the cholo, who when I set out had been tied on the other end of the rope, I saw to my horror and disgust the rope trailing idly on the snow, the two men where I had left them. On a steep and dangerous slope, on the very brink of a crevasse into which a careless step would have plunged me, and no one on the rope! A little less caution, and I should be in the bottom of that crevasse now!



Highest point reached on Illampu



Miss Peck—Third camp, Illampu

Mr. U

There was no question of going farther. Indignation at this desertion surpassed other emotions. Even a Swiss guide would not advance alone in such a place! I drew near, remarking that until I turned I supposed some one was on the rope. "No, indeed," said S——, adding that if I persisted in going contrary to his judgment, I could not expect him to follow. If he went in opposition to mine, he would expect the same treatment. Yet earlier in the day I had followed him in a wholly unnecessary and equally dangerous traverse without a word. There was nothing left but to return to the tent, which we reached about five.

Now came discussion as to the morrow. I was far from satisfied with the day's work. None of us had been ill, and it was evident that we could go much higher without suffering more than discomfort. There was no good reason for the retreat. Indeed, S—— *now* said that he could have gone on to the top of the *arête* had he felt inclined. His reason for refusing to do so, he added, was that once there he knew I would persist in going farther. True, I had been planning to continue if the way beyond seemed practicable. Why not? That was what I had come for. It looked as if we might reach the summit in two hours, but I had intended to persist for three, that is, until five o'clock; for if we descended the final peak by sunset, I thought that by moonlight we could safely follow our footsteps over the snow in return. Indeed, the moon, almost in its first quarter, gave a more agreeable light on the glaring snow than the sun by day. If worst came to worst, compelled by exhaustion or bad weather, I believed we could make a cave in the snow, which might be warmer than the tent, and in this stay until morning. One must be prepared to take a little chance when undertaking the conquest of a great mountain.

I now proposed that the indians on the morrow carry tent and baggage two hours higher, as should have been done the day before; from that point we could surely reach the summit the day following. If the indians refused to go on, we might rest a day where we were. Setting out, then, two

hours earlier and losing no time on the *arête* we might seasonably gain the top. S—— at first refused to stay himself; then he declared that the indians would not stay, though he would tell them what I said. He thought we had done very well as it was, far better than he expected (as if that had anything to do with it), since he had had no faith in my powers of endurance. He believed that we had surpassed Conway's record (though without grounds for this opinion) and that I ought to be content. He presented the matter to the indians, but without urgency, enthusiasm, or a real effort to persuade. He said we had not enough to eat, though there was any amount of *erbswurst*, plenty of tea, chocolate, sugar, grape nuts, and raw bread, and several cans of meat. He presently announced that neither the indians nor Garcilaso would remain longer; the former, having no smoked glasses, were suffering from inflamed eyes, and Garcilaso said he must be in La Paz the following Saturday (it was now Monday), a poor excuse, and as a matter of fact he did not go. S—— asserted that if I wanted another try I must go back to La Paz and make a fresh start. La Paz, indeed, and we so near the goal! Oh, how I longed for a man with the pluck and determination to stand by me to the finish!

After supper with a good soup I was glad to get to bed. I was tired enough to sleep a little, though with a slight headache from previous insomnia, and with great disgust at not reaching my goal; at the same time I rejoiced at doing so much better than the year preceding. The next morning we broke camp in good season, the men showed far greater alacrity in coming down, and we soon reached the site of our second camp at the end of the rocks. Here we were met by two of the other indians who had come from the lower camp to look after us and welcomed our return. We had now a more hearty breakfast of soup and meat, at least the others did, for I was not hungry; then we proceeded down the moraine. S—— went on ahead to have the horses made ready so that we could continue to the *finca*, while I, being

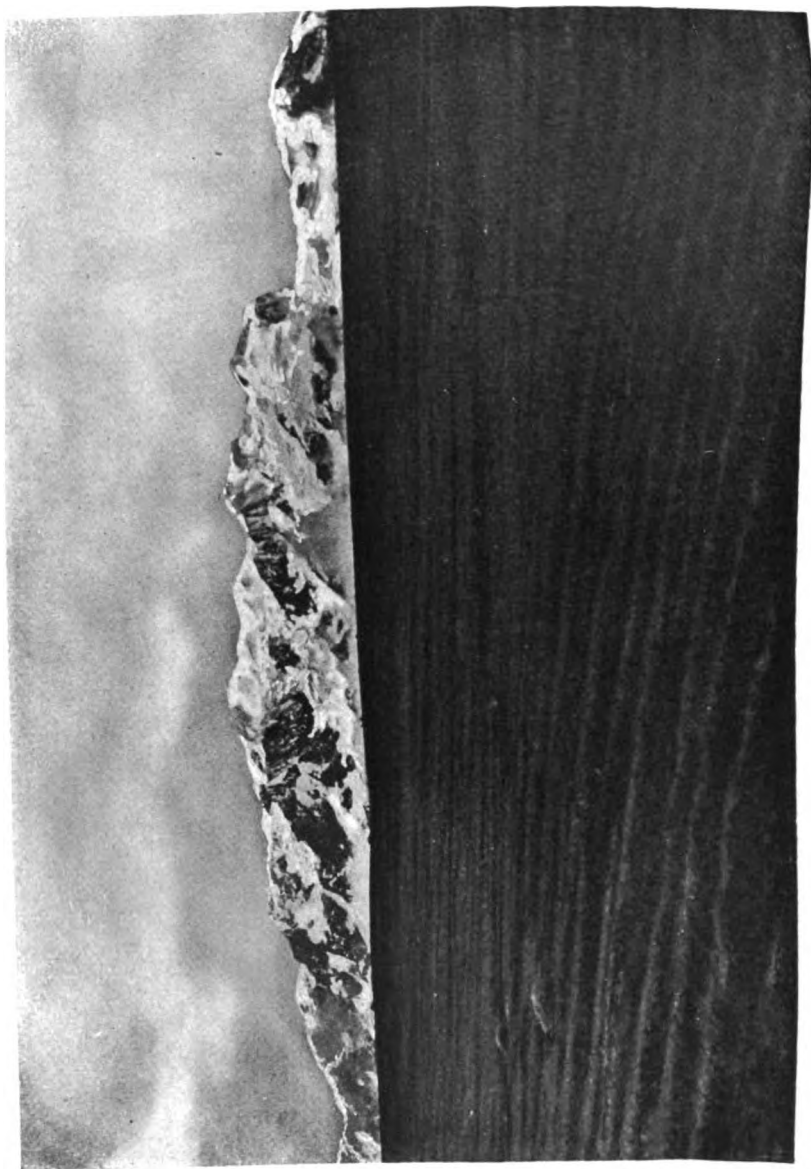
tired, descended more slowly. Going down hill, at best, is not my strong point. I do the difficult bits all right whether on snow or rock, but walking down over loose, jagged stones is not to my liking. In spite of thick boots my feet ache wretchedly from the stones, and it is impossible to hurry. It was after four when I reached the first camp where the indians were cooking dinner. As the arriero had departed that morning with the mules, because he said they had eaten up all the grass, S—— inquired whether I wished to remain in camp over night or keep on to the *finca*. "To the *finca*," I said, for since we must go back, the sooner I reached La Paz the better. Somewhat rested by a good dinner, soup again, but better, I was glad, nevertheless, to learn that some burros belonging to the *finca* were here and a little horse on which I could ride. The big tent was taken down, the burros were laden with baggage. Walking down the narrow valley till we had crossed the little stream, if not perfectly happy, I was yet in a much less doleful frame of mind than the year preceding. Then I mounted the little horse for my first ride without saddle or bridle. With a rope tied around his neck G—— led him until we reached the top of the hill, when he left me in the worst part to my own devices. Most of the way down was so steep that I was in continual fear of sliding over the horse's ears, but somehow escaped, frequently clutching the animal by the mane or neck and sorely missing my stirrups. As usual the way seemed long, though under the brilliant moon it would have been charmingly romantic if I had not been too tired to enjoy the unusual situation, the splendour of the night, and the immensity of our surroundings.

Arriving at last, at quarter past seven, instead of the nine it appeared, it was pleasant to enter a house and sit in a chair once more. We had another supper, we packed our traps, excepting those needed for the night. I paid the indians and Garcilaso, who all seemed well content with the trip and their fees, so that it was eleven o'clock before I was able to seek my pillow on the floor. Pillow did I say?

A roll of miscellaneous articles, including boots and bottles, performed this service. My face had now begun to burn, as I had foolishly gone upon the ice with no protection for it, save my automobile glasses, though I had brought some soft silk for the purpose. As a result, much of my time between eleven and six was spent in dousing my face with Pond's Extract, yet I slept more than in all the three nights previous.

Having a long day's journey before us, forty-five miles to the *Tambo de Perez* and no place to stop an hour or two short, as in coming the other way, we were up at six and off at half past seven. While bidding the people farewell I was considerably astonished when Garcilaso, following the custom of the country, embraced me: not a real hug, but quite enough. He was a good fellow if none too clean. But what can you expect? I didn't wash my own face while absent from La Paz, nor many times my hands. One cannot be squeamish about such things on expeditions in such a climate and with such inconveniences, especially if with any regard for one's complexion.

The way was long. At the end I was nearly dead. With but a short halt at noon it was after dark when we reached the *tambo*. As usual, towards the last I was obliged to walk and almost collapsed. S—— having gone on ahead to see about our accommodations at the *tambo*, the *arriero* proved a kindly assistant, and having taken his arm for a while I presently remounted and arrived somewhat improved; not too much, however, to seek at once my adobe bed, when a small draught of brandy speedily revived my spirits. "Nothing to eat!" they said as before, but this time were amenable to persuasion, and soup and eggs were presently brought. I was too much exhausted to bother with pulse and temperature, but a fair night's sleep put me in respectable trim for the thirty miles next day. The now familiar landmarks were joyfully passed until before dark we arrived in La Paz. A sorry reception awaited me; no room in the hotel. After considerable search I found in the other hotel, in a room



Mt. Sorata from plain at 13,000 feet altitude

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already occupied by a Russian lady, a bed, which I did not wait for dinner to occupy, though I thoroughly enjoyed the meal there. For some days I was a sight to behold, the cold-sores and blisters which covered my face doubtless contributing to my general feeling of exhaustion, all carelessness, too, which made it the more annoying. It was a fortnight before the injuries to my face healed and longer before I fully regained my previous condition of vigour. Meanwhile, however, I begged S—— to make another attempt on the mountain, offering him all the money I had if he would enable me to gain the summit.

He had proved himself capable of managing the indians and possessed of considerable skill and judgment in climbing, for an amateur of his limited experience. He had also been much more considerate of my comfort than my previous assistants. That he had refused in the best of weather to go on when we were at the highest point, or to persist a day or two longer in the conquest of the mountain, when we were on the ground, has always seemed strange. Now in La Paz he was at first disposed to accept my proposition, but business arrangements, previously entered into, so developed as to render it impossible. The weather by the occurrence of several snow storms indicating the close of the dry season, it seemed best for me to turn without delay in the direction of one of the other two mountains on my programme, giving up for the present further efforts on Mt. Illampu.

CHAPTER XIV

FROM LA PAZ TO YUNGAY

My original plan for the expedition of 1904 included an attempt upon three mountains: Illampu, Sajama, and Huascarán.¹ For the accomplishment of my purpose, I desired to set out in May. This having been impossible, the lateness of the season now compelled a choice between Sajama and Huascarán. Sajama, the nearer of the two, situated southwest of La Paz, near the boundary line of Bolivia, could be reached in far less time; a two days' *diligence* ride to Oruro, followed by a horseback journey of several days to the foot of the mountain almost due west. Like many other peaks of the West Cordillera to which it belongs, Sajama is a volcano, with slopes, therefore, at a moderate angle; and while the upper part of the cone is covered with snow it is highly improbable that difficulties would there be presented such as are found on the immense glacier-covered sides of the great mountain *massif*, Illampu, in the older East Cordillera. If suitable assistance could be procured in the city of Oruro where many foreigners were engaged in mining, doubtless the mountain could be ascended. But Sajama is a comparatively isolated peak in the midst of a practically desert region, remote from any settlement save a very small one at its base. The surrounding country is lacking in interest, the view from the summit would be tame and unworthy of the toil required to reach the goal, which would be considerable, as the difficulties inherent in attaining the altitude of 22,000 or 23,000 feet given by various authorities to this mountain are beyond the physical endurance of most persons and tax the soundest organisms.

On the other hand the journey to the Peruvian Valley

¹ Pronounced Wascarán.

above which towers lofty Huascarán would be through a rugged mountainous region. In the valley itself, if stories were true, I should find wonderful scenery surpassing even that of the Bolivian Cordillera Real, and I should at least have the privilege of calling the attention of my fellow countrymen to a little known region which in scenic grandeur rivals any other part of the Western Hemisphere. Accordingly, although the probability of a successful ascent of Sajama was great, while that of Huascarán was doubtful or worse, I decided to undertake an expedition to the latter, as being in every way more valuable, except from the standpoint of personal success.

The week following my return from Illampu to La Paz I, therefore, set out for Arequipa and Mollendo, glad of the respite in my labours afforded by the journey to Lima. I was still suffering from the exhaustion due to my fatiguing climb, long mule rides, and their attendant ills, and I now had an opportunity to recuperate without wasting valuable time for that purpose. After a single day at Arequipa, warned by experience of the uncertainty of the steamer, and of the possibility that one might arrive in Mollendo and depart without due notification above, on Monday I went down to the port and there abode in a wretched little hotel in the most doleful sort of weather, a continuous drizzle, until the following Thursday when at last a steamer arrived.

Mollendo, besides being the chief port of Southern Peru, is a health resort for those people above, at Arequipa and La Paz, who are unpleasantly affected by a long stay at the respective altitudes of 7,500 and 12,000 feet; but it is by all odds the most melancholy health resort that it was ever my misfortune to visit, and for a town of its size and equable climate the most unattractive as a place of residence. Yet many persons are greatly benefited by coming down to the sea even though the port be damp and cheerless. There is nothing to do except stroll along the sandy beach or climb up on the rocky promontories often sprinkled with foam from the ever dashing waves; with a dull sky and gloomy sea,

this soon becomes monotonous. I was as thankful to depart as the year before from Quilca, also to arrive once more in Lima and establish myself in the now homelike Hotel Francia y Inglaterra.

In spite of my favourable experience in Bolivia, I still felt a little trepidation about venturing alone into the wilds of Northern Peru where there was no railroad or carriage road, especially as my acquaintance with Spanish, though improving, was still rather meagre. I therefore sought eagerly for some companion, of any nationality, who speaking Spanish with either French, German, or English might act as escort and interpreter, and at the same time, if possible, be an assistant in mountain climbing. A young gentleman employed in the house of W. R. Grace, who had been a fellow voyager on my way down in 1903, was anxious to accompany me, but could not be spared from the office. I endeavoured to interest some of the Government officials and carried on negotiations with several persons recommended by themselves or others, but all came to naught. Nevertheless, I resolved to go and, as the season was already far advanced, to take the next weekly steamer.

The evening before the boat was to sail I chanced to observe a man engaging a room at the hotel office who, though he was speaking fluently to the clerk in Spanish, I thought had rather the appearance of an American, possibly a miner, in quest of work at Cerro de Pasco. Accosting him, I found that my supposition was correct. He responded politely and after I had explained my plans consented for a suitable recompense to accompany me, expressing a cordial desire to assist an American woman in accomplishing so great an achievement as the ascent of this lofty mountain. The man, I soon discovered, spoke better Spanish than English, but this he accounted for by saying that he was born near San Diego of Mexican and Italian parentage. Neither a scientific gentleman nor a mountain climber, he had been, he said, to South Africa and other parts of the world as a seaman and a miner; he was evidently muscular and used to hard

work, and I thought possibly an ordinary man with no pretension to education and technical skill might show better courage and be more amenable to my wishes than some gentlemen.

Meanwhile I had been so fortunate as to meet Señor Victor Pezet of Chimbote, an estimable and courteous Peruvian, who spoke English fluently and was greatly interested in my expedition, especially because my mountain lay in the same Departamento and was at times visible from his home. Mr. Pezet, though he had never been in the United States, was acting as our consul at the seaport Chimbote and for this reason also he may have been the more ready to assist. From him I received much information in regard to the country and an introduction to Señor A. B. Leguia, then acting as agent for the British Sugar Company, now the honoured President of the Republic. This sugar company owned a large plantation, San Jacinto, back of Samanco, the port next to Chimbote, and more convenient to my destination. Señor Leguia kindly offered to telegraph to the hacienda to have saddle horses and baggage mules meet me at Samanco, as no animals would be in waiting there unless sent down from the interior. With this friendly assistance and provided further with letters to the captain of the port and to the administrador of San Jacinto, on Tuesday, September 13, I embarked at Callao for the journey.

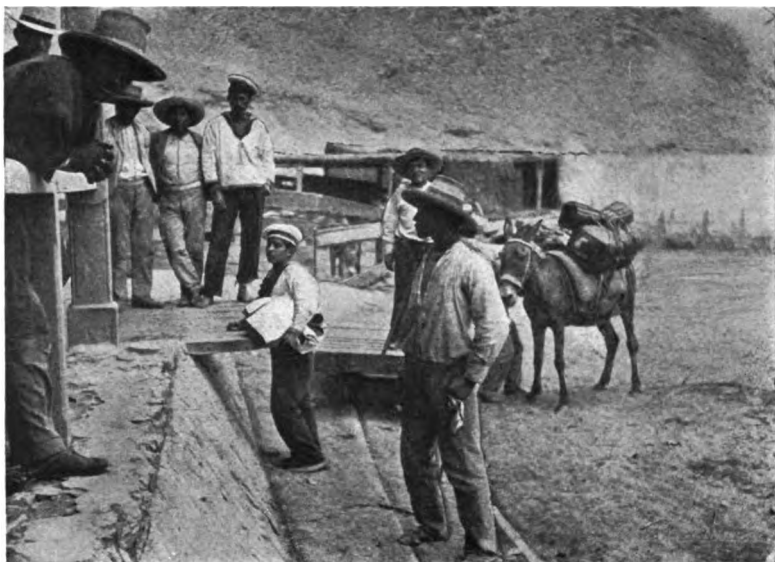
Tribulations at once began. The bubonica had been more or less prevalent in various coast towns of Peru for a year and a half. In Lima cases were of daily occurrence. As the government strongly desired to keep the disease from spreading, all baggage leaving Callao was taken to a building there for fumigation. By dint of much protestation to the official in charge, representing that my photographic material would be ruined, I finally escaped, with the box containing this and with my dress suit case untouched. The other baggage I left the *fletero* to look after, with strict orders that it be *fumigated* only, for they had two distinct methods of dealing with the various articles. Pieces of light

baggage, being opened, were exposed to sulphur fumes in a tightly closed room, while other things were put into an oven and baked. I discovered afterwards, to my great disgust, that a bag of mountaineering equipment suffered the latter treatment; some heavy climbing shoes made in Tyrol were nearly ruined, the stout leather subsequently cracking like paper.

Travel at this time was unusually light on account of the paralyzing effect of the bubonica, especially on local trade. Our boat, a *caletero*, going only to Etén and calling on the way at the smaller or second-class ports, arrived about ten o'clock Thursday morning at Samanco where I was received with much consideration and taken on shore by the Captain of the Port. Though the harbour is one of the best in Peru, and considerable business is done here by way of exporting sugar and minerals and receiving general merchandise, Samanco is one of the smallest of the regular ports of call, having but a dozen houses on the beach, mostly cane-built huts occupied by boatmen. It is not an attractive dwelling place, for just back of the beach, separated only by a narrow strip of sand from the ocean, is a slimy pond which *looks* like a breeding place of disease, though the hamlet was said to be healthy.

Horses and baggage mules from San Jacinto were in waiting, but a large wooden box of mine, too heavy and unwieldy for a mule, must go on a cart, which would arrive at the hacienda during the night. For a cart road, somewhat of a rarity in Peru, leads up from Samanco to Moro, about thirty miles from the sea.

Strangers, that is to say foreigners, being a novelty in this section, the greater part of the population assembled while our baggage and the animals were prepared for our departure, which occurred about half past twelve. A most interesting ride followed, in every possible manner a striking contrast to those I had suffered on the Bolivian plateau. Instead of a mule I had a good horse, the weather was comfortably warm, the ground, the people, the prospect, even the



Samanco



Residence of Administrador, Church, San Jacinto

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sky seemed different, and I already rejoiced that I had made choice of Huascarán instead of Sajama. The coast region of this section is far more attractive than that of Southern Peru. The mountains are much nearer the shore, extending in bold headlands quite to the sea with stretches of sandy beach between, the promontories with rocky islands forming several excellent harbours.

A few rods along the beach we turn toward the mountains, having on our right, though out of vision, the Nepeña stream which, coming down from the Black Range above, affords a water supply sufficient for the irrigation of two large haciendas. The sandy road, shaded for some distance by trees or bushes often thirty feet high, is in part lined by fences of wire or of brush, more rarely by stone walls nearly three feet thick. The inclination of the plain, which in the distance of twenty miles to San Jacinto rises barely 1,000 feet above the sea, is usually so slight as to be imperceptible. The curious part of it is that while our journey is over practically level ground we are continually surrounded by hills, not in the far distance nor connected in ridges, but scattered here and there, entirely distinct from each other, rising abruptly from the level plain like rocky islands from the sea, permitting extensive views of the desert between. The hills are more or less elliptical in shape, many from a sixteenth to a quarter of a mile in length, the size and height gradually increasing as we go onward, nearly all steep enough to afford a pleasurable climb for persons who like to take hold with their hands. Some hills not far from shore seem to be solid rock, these the most picturesque and inviting, others are a mass of more or less rounded boulders; one shows a greenish tint, but the rest, like the greater part of the plain, are absolutely barren, and yellow, brown, or grey. We hear the song of birds, I counted altogether seven different varieties, a few beautiful little ones with breast and head of bright scarlet. These, I was informed, cannot be domesticated, but soon die if caught and confined in a cage. The mournful minor notes of the dove were heard nearly all the way.

Straight ahead appeared to be three or four distinct ranges, the last, a formidable almost perpendicular black wall of extraordinary height. After a three hours' ride, mostly through a desert region, we reached a village called Nepeña, where we were compelled to make a not unwelcome pause, in order not to desecrate by passing on horseback a religious procession which was in progress in honour of Our Lady of Guadalupe. A life size image of the Virgin was attended by priests, children, and others in the manner of the procession seen at Arequipa. Farther on we were obliged to make a detour from the direct road which passed through the grounds of the hacienda San José. This had been closed by the proprietor because the owners of the two plantations were not on good terms with each other on account of some trouble over the water supply. The twenty miles were so long that an unusual sunset with a beautiful red glow had passed ere we rode through the main entrance of San Jacinto to meet a cordial greeting from the administrador, Señor Idiaque, and his Señora, who, as we dismounted, were awaiting us on the veranda. I was delighted to be assigned to a nicely furnished room with comfortable bed, and to find, to my great astonishment, a bath room and toilet adjoining. An excellent dinner was presently served in six or seven courses, including, among other things, soup, beef, chicken, quince jelly, a cream pudding, and bananas, as well as wine, apollinaris, and coffee. Evidently Northern Peru, if destitute of railroads, was by no means uncivilised.

Having learned that my box would not arrive until three the next afternoon, I decided that nine o'clock in the morning would be early enough for coffee and rolls. The former was delicious, and as the lady of the house was affable, I ventured to inquire into the particulars of its preparation. The coffee was made twice a week, each time being freshly roasted, and ground to the finest powder. Then it was put into the top of a French coffee-pot and pressed down hard. Boiling water, a few drops at a time, is then poured on for an hour, slowly trickling through. With plenty of servants,

time is there no object. Twelve spoonfuls of coffee will make a wine bottle full of the liquid, which is very strong and black, the real essence of coffee. A little of this put into a cup of boiling milk makes a delightful beverage, far superior to ordinary coffee with a little milk or cream.

During breakfast, which was at half past twelve, we had a long conversation in regard to the status of women in our respective countries. An agreeable and cultivated French priest who was present expressed his opinion in opposition to women being allowed so much freedom as in the United States, though he approved of their having broader lives than in Peru. Señor Idiaque was more liberal in his ideas. He explained the laws of Peru in regard to inheritance, stating that where there is no will property is divided equally among the children. While by will one may be given more than another, the undue favouritism often shown in other countries is prevented, as no child may receive double the amount given to another, much less ten or fifty times as much. If one is to be cut off on account of bad character, evidence to that effect must be given in court.

The arrival of my box being delayed until four, by the time it was unpacked and a suitable division had been made of the articles to be left and carried, it was rather late to set out for Moro, ten miles distant. It would have been wiser to remain till the next morning, but after bidding our hosts good-bye and getting under way I disliked to retreat. The baggage came off, first of one mule, then of another. Our guide was ill natured and declared that by the time we reached our destination it would be ten o'clock and all the houses would be closed. A fee of two soles¹ at once rendered him more amiable, and we cheerfully pursued our way. For a time we followed the railway track which extends a distance of nine miles from one end of the plantation to the other. In the brilliant moonlight we had a fine view of growing sugar-cane and of abrupt and rocky hills under a beautifully clouded sky. Later we pursued devious ways

¹ A sol is nearly fifty cents.

across babbling streams, under low branching trees, and through narrow lanes, till about nine o'clock we reached the centre of the town, too late, we thought, to go on to a hacienda in the suburbs to the owner of which, Señor Gadéa, we had a letter from the administrador of San Jacinto.

Fortunately for us Moro is an exceptional town, boasting of a real hotel. It has one room where meals and drinks are served and one where the rare traveller may sleep. In this there was a mattress on chairs for which clean sheets were provided. I thought myself lucky in not having to occupy the floor, but hordes of fleas found me above and prevented continuous slumber. Early in the morning Peter went out to Señor Gadéa's with the letter of introduction. A man was found, prepared to furnish burros to transport our baggage to Cajabamba, the next halting place on our journey to the Huailas Valley. Another man agreed after some dickering to provide saddle horses to the same place for the sum of ten dollars. Our hotel breakfast about half past ten consisted of a broth with boiled meat and yuccas, caldo they call it, and a course of steak, rice, and potatoes, with wine and tea.

In the afternoon, accompanied by Peter, I walked out beyond the edge of the town to the hacienda of Señor Gadéa, a courtly old gentleman who lived here with his wife, a married daughter, her husband and three small children, and a daughter who was still single. The house had adobe floors and was simply furnished, the dining room open to the air on two sides, a pleasant arrangement in this always summer clime. After cordial greetings we were at once served with beer, a little later with wine. About five o'clock we had dinner, a more elaborate meal than might have been expected from the simplicity of the house, a soup, some fritters, boiled meat and potatoes, a steak and salad, in four separate courses, then a warm pudding with syrup, and two kinds of wine. At the close a cup was placed before me containing the most deliciously fragrant coffee it was ever my good fortune to perceive, with an aroma really exquisite; but that

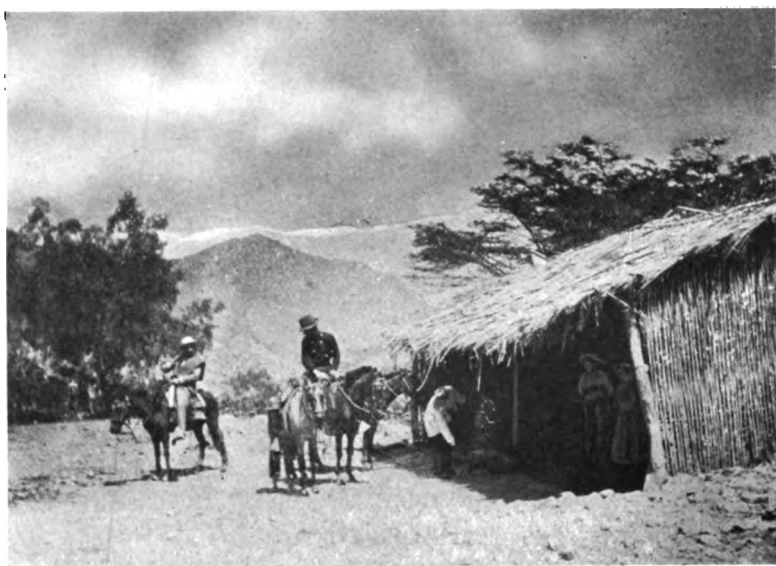
was all I could enjoy as I must be up very early in the morning; drinking the coffee would have kept me awake till three, a poor preparation for a long day's journey. I consoled myself and my solicitous hosts by assuring them that on my return I should venture to enjoy a cup whatever the hour of the day.

After all I did not sleep well in my anxiety for an early start. About four I called the boy to saddle our horses which were in waiting, but when we were ready there was exasperating delay for Señor Mariátigui, the son-in-law of Señor Gadéa, who had proposed to accompany us. However, we departed about six, our baggage on slower burros having left the previous afternoon. Moro is situated near where two streams, coming down separate gorges, unite to form the Nepeña at the uppermost edge of the region of the plain; the hills, which though larger and more numerous had hitherto been scattering, now became ridges leading up to the Black Range. As our route follows the southern branch of the Nepeña, for a half hour we ride south over nearly level country before beginning our long and tedious climb toward the east. The early morning is delightful, indeed the whole ride would be, if thirty miles up-hill did not require so many hours. Near the bed of the stream we pass a few cane-built huts, then slowly ascend by a good bridle path along the side of a generally barren slope. In some places there are trees and bushes by the path, many of heliotrope so laden with fragrant blossoms, often above my head, that I feel no compunction in breaking off a great bunch to put in my belt and when these become wilted in discarding them for another. Occasional patches of green are in beautiful contrast to the barren and rocky hills at the sides of the cañon. Several hills are composed entirely of pale yellow, almost straw coloured rocks, well rounded, standing out separately, some looking ready to roll down to the gorge below whither many of their companions have preceded them. The high black wall in front, long before seen from the sea, seems to bar our way. Our horses pace whenever there is a

bit of level, yet as usual progress seems slow. Having earlier in the day passed our baggage on the still slower burros, about ten we arrive at Hornillos, the halting place for breakfast, a picturesque level spot among the rugged hills, consisting of a few dwellings of reeds by the gurgling brook, and a large adobe oven. Above the stream bend graceful willows, which with a few irrigated fields of alfalfa and vegetables form a pretty oasis among the barren hillsides. The people were pleasant if dirty, and I did not refuse a plate of soup, composed apparently of meal and herbs with an egg on top. Peter was too fastidious to test it, even after I pronounced it good, though Señor M—— was devouring his with avidity.

At Hornillos, perhaps 4,000 feet above Moro, the cañon divides; the road forks as well, the old way at the left passing by the village of Pamparomas, at the right a new road, both leading up to Cajabamba; but the latter is shorter and better, I understood the arriero to say, as later proved to be the fact. Señor M——, however, insisted that we should go by the old way to Pamparomás which Peter also urged, so that was the course we followed. Peter and M—— had by now struck up a great friendship. Their continual chatter made me glad to ride on ahead out of ear-shot to enjoy the scenery in peace and quiet, the massive black wall ahead presenting ever a more impressive appearance.

Pamparomás, which we reached at quarter past three, is a considerable village of stone or adobe houses, crowded together on the hillsides at an approximate altitude of 9,000 feet, therefore, in a rather cool climate. The inhabitants mostly engage in the carrying trade (with burros as the chief means of transport) between the coast and the Huailas Valley on the east side of the Black Range. We paused at a *tumbo* or inn where a funny old woman presides, voluble and friendly to an almost excessive degree. In the principal room on the dirt floor were two single iron bedsteads and a few chairs, also an adobe bench decorated with a plush scarf. We had some soup, spaghetti, and meat, after which I pro-



Copyright, 1908, Annie S. Peck
Hornillos, on road to Cajabamba and Huailas Valley



Hornillos, Oven

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posed to proceed, but Mr. M—— declared that we must remain over night. The rest with the exception of the arriero all joined in, asserting that it was impossible to reach Cajabamba before dark, that the road was extremely dangerous with deep precipices at the side, that the people might be away from home, that in fact the gentleman and his wife were surely at the mine a league or two higher, that in the absence of their parents the young ladies would never admit strangers, that in the wall at some distance from the house there was an outer gate which would be locked and however loud our pounding we should be unheard and thus shut out in the cold for the night, that our horses must be fed here, and that the road was so bad above that we should not reach Cajabamba before ten o'clock.

In spite of all this I insisted upon going on, according to our original plans. But the horses were still unfed. The arriero, who seemed a very decent fellow, said he had no money for alfalfa, though the owner of the animals had been paid in full the day before. Half an hour was already lost; I promptly supplied the needed funds, thirty cents procuring alfalfa for our three horses, and they ate diligently for an hour. Meanwhile the old woman continued her protestations against our departure, graphically depicting the dangers of the night journey. Señor M—— said he would not go in any case as his horse was too fatigued. Certainly it was a poor beast and looked exhausted. Hitherto, Peter had been polite and unobtrusive, but now he continued to remonstrate in a voluble and disagreeable manner against my decision to proceed. "The road is very bad," he said, "much worse, the arriero told me, than it has been below. It will be very dangerous after dark. We shall be obliged to walk. The cold will be intense. I should not think you would wish to arrive so late at the house of strangers." I assured him that that was my affair, that I was paying for this expedition and would do as I saw fit. I had heard that the Brysons were extremely hospitable. The Gadéas had assured me that I needed no letter of introduction, that

once there I should be cordially received and have no further care. I believed, where an English-speaking person was such a rarity, they would perhaps be as glad to entertain us as we should be to be entertained. I had overheard what the arriero said and while my knowledge of Spanish was far less than his, Peter's, I was positive that the arriero (who spoke much more distinctly than Peter) had said that the road was no worse than part of that already passed over. I was going on, I declared, and in my most dignified manner I requested him to say no more. Peter was indignant at the idea that I had understood the arriero better than he, and refused to subside, although ignored. At quarter past five we again set forth, Peter still sputtering, but at length he abandoned his fruitless efforts so that I could enjoy what proved to be a delightful ride. Some distance up, after crossing the little stream, we climbed in zigzags the south wall which separates this branch cañon from the other. Then, happily with our faces seaward, we could give full admiration to the gorgeous sunset as we rode high up on this dividing wall, the end of which we presently rounded, coming into the south branch 1,000 feet above the other road on the opposite side of the gorge. The red glow lingered till we were far up this valley.

I have never observed in the tropics the sudden fall of darkness of which I have read. From the accounts of some writers, one might think that it was as dark as midnight five minutes after the sun sank below the horizon. The twilight is obviously shorter than in our summer evenings, *much* shorter than in England, yet it lasts about half an hour. A more noticeable fact, which I observed once or twice to my sorrow, was that when the sun was quite high in the heavens apparently several hours above the horizon, it went down in half the time I should have expected, had I not realised that there would be a great difference from its descending in a nearly straight line instead of on a long curve; yet in spite of this knowledge the early sunset once or twice took me by surprise.

That it was almost full moon was a fact I had counted upon. Before the twilight faded a beautiful bright moon was illuminating our pathway and the entire scenery, affording an ample and more agreeable light than the hot noonday sun. The road was excellent, better than much of the distance below. The gorge was deep beneath, but what mattered that, on a smooth bridle path eight or ten feet wide? The only drawback to my happiness lay in the fact that it was now very cold in comparison with the temperature at Moro; though I had prepared for the change by putting on heavy underwear in the morning, and sweater, woollen cloak, and mittens, when they were needed, I was stiff with the cold before our destination was reached. It was long after dark when we saw the lights gleaming in the distance. Well pleased were we when, crossing a little stream, we rode through an outer gateway along a shaded path up to an inner door where, a few minutes past eight, we knocked and not in vain.

First came a servant, then a woman's voice called "Who is there?" With a word of explanation we were promptly admitted into a patio, on two sides of which were two parts of the house; on the right, the parlour and office, on the left, the main house of two stories. What with the cold and the long ride I was so stiff I had hard work to dismount or to walk afterwards, but I was soon thawing out before a blazing wood fire in the parlour. The daughter, Miss Bryson, had first given us cordial greeting and Mr. and Mrs. Bryson soon appeared to assure us of a welcome, that dinner was being prepared, and that I was quite right to come on to English speaking folk where I should have a comfortable bed, rather than stay over night in that dirty indian hovel. The good hot soup, meat, rice, and tea, which we had before long, followed about eleven by a glass of hot toddy, fully reconciled Peter to his evening ride, while I rejoiced later in my good bed and nice heavy blankets.

As our baggage would not arrive before the next night, and as I, through fatigue and excitement, was suffering

from a slight headache, I did not rise until one. I may say, parenthetically, that I believe my habit of relaxing and resting at the earliest moment possible after any extra fatigue or strain, perhaps at some moments when others on account of etiquette or obligation would think it impossible, is one great reason for my having been able to endure more in certain lines than most persons.

Luncheon was served at two. Wishing to improve my time to get a little needed training, about four, accompanied by Peter, I took a walk among the hills with which the place is surrounded. Being still somewhat overdone from my thirty mile ride of the day previous, and walking more rapidly than was prudent on an up grade at an elevation of 12,000 feet when but freshly arrived from 1,000, I presently felt a slight ringing in my ears which compelled me to sit down a few minutes. Then at a slower rate I pursued my upward way a while longer. Peter seemed in excellent condition and persevered to the top of a ridge in front whence I hoped he might obtain a glimpse of the valley, but he reported only similar hills beyond.

It was still the dry or winter season, but above Hornillos the slopes receive more and more moisture, so that these rounded hills or mountains instead of being barren, were covered with a brown grass. There were also cultivated fields of alfalfa, barley, and potatoes belonging to the hacienda. The temperature was cool enough to be fine for walking. The air was bracing? Perhaps, after you were used to it, but a trifle thin at the outset. Quite near were some of the highest parts of the Black Range, hardly peaks, rather a black jagged wall, cut by few passes or valleys. Though not yet at the top of this pass we were already on the east side of the highest part of the ridge in this region, or so it appeared.

It would have been agreeable and an excellent preparation for higher climbs beyond to accept our hosts' urgent invitation to make a longer stay; but on account of the lateness of the season I felt compelled to go on at the earliest

moment possible. The burros with our baggage, they said, we need not expect until Wednesday night, we had arrived Sunday evening; but for once the animals made better speed than was prophesied, appearing Tuesday morning. After a breakfast at ten and luncheon at one, we were able the same day at 1:30 p. m. to set out for Caraz.

The man who attended us from Moro had returned thither the day following our arrival. From Cajabamba we were supplied by Mr. Bryson with horses and baggage animals, the latter going direct to Yungay at the foot of the mountain, while we set out for Caraz farther down the Huailas Valley. A boy of the household accompanied us to the top of the pass, an hour and a half distant, where my aneroid barometer indicated an altitude of 14,500 feet; 14,700 is the height given for this place in a Peruvian list of altitudes. I was pleased to observe that in both directions the black wall towered several thousand feet above, gratifying evidence that my estimate from the steamer of from 15,000 to 18,000 feet was about as good a guess as could be made. Authorities in Lima give these figures as the height of this portion of the Andes.

From our point of vantage at the top of the pass we looked down a gorge to a delightful valley, carpeted in various shades of green, brown, and yellow, along which winds the river Santa, the largest stream in Peru flowing into the Pacific Ocean. But the eye does not linger over the picture far below. It is caught at once by the splendid sight opposite: a row of snow clad giants stretching from north to south as far as the eye can reach, a serrated wall so steep and high as I had never before beheld, rising from 12,000 to 15,000 feet above the valley. The massive buttresses below are chiefly of brown hues with an occasional patch of green; higher up are tall rock cliffs surmounted here and there by peaks of dazzling splendour, varying in outline, but several so sharp and sheer that it seems strange the snow has not slidden away leaving their heads and faces bare. There was more snow than I had expected to see

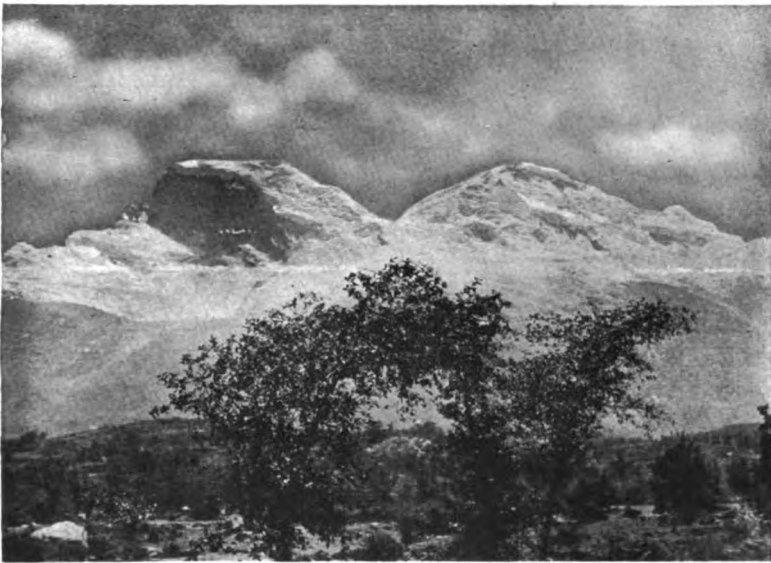
on these peaks of the White Cordillera. It seemed strange that there should be so tremendous a difference between two ranges very close together; for the Huailas Valley between is only from one to four miles in width. The Black Cordillera, at this season frowning and gloomy, from its name characteristically so, shows at very long intervals a small patch of snow on the south side of some particularly high and perpendicular wall, while opposite us immense snow fields and glaciers cover the mountains, wherever the slopes will permit them to cling, down to a much less altitude than that of the Black Range. This condition, as in Bolivia, is obviously due to the fact that the cold peaks of the White Range relieve the moist winds from the Atlantic of about all their remaining vapour, so that the precipitation on the west side of the valley is extremely small.

Eagerly I search out Huascarán, at the south, a trifle higher than the rest. A saddle mountain it is called; if so a Mexican saddle with very tall horns, for its twin peaks rise several thousand feet above the *col* between. Directly opposite, back of the town of Caraz, is another saddle mountain with even sharper horns; it seems a favourite type. Here and there delicate clouds rest on the summits of the range. It is a glorious picture. One could gaze enrapt for hours; but the chill wind blows and we must hasten if we wish to reach Caraz before night, as we surely do, especially Peter, who does not like the prospect; for the cañon below is narrow and deep, and while the path along its side is sufficiently obvious it may be otherwise farther on, and Peter and I are now left to find our own way. After taking a few photographs we begin the descent.

At the very beginning there were two places so steep that it seemed that the beasts must slide, and we felt compelled to dismount. The rest of the way the road was good enough, though a little worse than on the west slope of this range. After zigzagging a short distance down the head wall the way passes to the right or south side of the cañon along a great buttress which leads far out to the distant



View of White Cordillera from Pass in Black Cordillera.
Huascarán at right



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Mt. Huascarán from 10,000 feet

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valley. As usual, Peter became pessimistic and asserted that it would be ten o'clock at night before we reached Caraz. Yet there were many places where the grade was slight and our animals could pace. A little excitement was added by occasionally meeting or passing a train of burros. These animals would sometimes politely scramble out of our way, but often a perverse beast would station himself directly across the path, there remaining immovable until the *fletero* ran up from the rear and gave him a good whack. Then he would rush along utterly regardless of, it might be, heavy casks hanging on each side of him, which were liable to take off a person's leg or do other dire damage. If on the inside of the track, one was in alarm for fear of bruises; if on the outside lest, being pushed off the edge, he should roll 1,000 or 2,000 feet into the depths below, the slope often being 60° or 70° . But the path was of fair width and it would have been foolish to worry over so improbable an accident, though Peter assured me that he would not allow his sister to take such a ride for \$1,000.

I greatly enjoyed the scenery, the deep cañon at the left, the grim, almost horizontal wall opposite which extended out for a long distance on nearly the same level as the top of the pass, and sloped down into the cañon at an angle of at least 70° . On our side the wall did not project in a straight line; we went in and out along numerous projecting side buttresses which made the way vastly longer, though of slighter grade than if we could have taken a bee line, impossible except to one's destruction.

Two hours from the top of the pass we came out upon a rounded grassy hilltop, where a path branched off to the left in the direction of Caraz. Now we rode, by horribly stony ways, among little cultivated farms, till about dark we reached the valley; but there was still a good moon. With some inquiries, presently crossing the river, a considerable foaming stream, we came to the paved streets of the town and into the principal plaza, on one side of which was the residence of an Englishman, Mr. Hudson, to whom we

brought a letter from the Brysons. Although hospitably received by the Señora, I greatly regretted the absence of her husband who, dividing his time between his business cares at his mining property and his house and family at Caraz, had recently departed for a month's sojourn at his silver mine on the east side of Mt. Huascarán. This was the more unfortunate as he was the only English speaking person in this section, and I had gone out of my way to obtain his advice about the mountain. Being familiar with both sides he would be able to give me, in English, information as to the best plan of attack. Mrs. Hudson, though the wife of an Englishman and the daughter of an American, did not speak the language at all and understood little, so that I was obliged, as at San Jacinto and Moro, to do my best in Spanish, with Peter occasionally helping out.

The rapidity with which immigrants to the United States become Americanised is often remarked upon as extraordinary, but it appears to be just the same when people go to other countries. I met several Englishmen and Americans who had married Peruvians whose wives and children spoke no English. While some of the men talked vaguely about going home some day for a visit, they had become just as much a part of the country as any Germans or Italians have of the United States.

A card from Señor Victor Pezet to Señor Arturo F. Alba, or Don Arturo as he was often addressed, the editor and publisher of a weekly paper, *La Prensa de Huailas*, brought a call from this gentleman who manifested great interest in my undertaking, offered me the use of one of his horses for the journey to Yungay and for the mountain climb, and expressed a desire to join in the ascent.

Wednesday evening I received a pleasant call from a bright young woman of the place, a rather unusual and surprising character to be found in this remote region. For she was a suffragist, if not a suffragette (the latter had not been heard of in those days), an ardent believer in the higher education of woman and eager to learn of the greater

freedom and other advantages enjoyed by the women of the United States. I heard afterwards that the brothers of the lady had attempted with partial success to defraud her of her property, which may have influenced her to believe that women should have education, and opportunity for self-protection.

Thursday forenoon, accompanied by Mrs. Hudson and Señor Alba, we set out for Yungay. It was a delightful ride up the valley along the paved highway wide enough for carts, but no carts were there. This seems strange in a fertile and thickly settled district, called the most densely inhabited portion of Peru, a centre, it is said, of a population of several hundred thousand people, most of whom live on the floor or sides of the valley, others in adjoining and tributary sections. It had not appeared remarkable that there should be no waggon road over that great mountain range along the sides of those steep cañons, but that no carts, carriages, or waggons were going up and down this populous valley, one hundred miles long, seemed evidence of a lack of energy and enterprise.

At the elevation of this part of the valley, 7,000 to 8,000 feet, we find a warm summer sun; we enjoy the fragrance of yellow broom flowers, the odours of fresh fields and growing plants; we ride between picturesque stone or adobe walls often with overhanging trees, we gaze at the cultivated hillsides, and far above at the darker wall on the right and the great white peaks on the left. Without doubt this Huailas Valley in scenic splendour far surpasses Chamonix, while in mineral riches it rivals the Klondike, for either merit deserving to be famed the world over; since these magnificent mountains are veined with precious metals, gold, silver, and copper, as with the more useful, if plebeian coal. On the floor of the valley grow figs, grapes, oranges, chirimoias, and other tropical and sub-tropical fruits; on the hillsides above, the grains of the temperate zone; all climates save the very hottest within a distance of a few miles, and the grandest scenery that heart could desire. What better

dwelling place could one covet? Yet in spite of all its attractions I wondered that an Englishman or an American could come and settle in this quiet spot, far from old associations, marry, and become to all intents and purposes a Peruvian. Still, why not? Why condemn or even wonder at an Englishman or American doing that for which we applaud the Italian, German, or Swede, abandoning his home and going to a foreign country where he believes he can better himself?

At the attractive hacienda of Mrs. Adams, the widowed mother of Mrs. Hudson, we paused for breakfast, continuing our ride in the cooler part of the day to the home of the Vinatéas in Yungay to whom I brought a letter from Mrs. Bryson. In many of these towns there are no hotels or inns, the few travellers being entertained by some of the residents. Having a single note of introduction to begin with, or as in our case at the Brysons' with none, a tourist may go on indefinitely, sent by letters from one to another, and treated with great hospitality by persons who, as a rule, are happy to entertain strangers.

This is simply natural, as where there is no railroad travellers are few, diversions and amusements are rare, so that the advent of a visitor, as it were from another world, is a pleasurable excitement. Guests entail little expense or trouble as food is extremely cheap, families have their own haciendas and so many servants that labour does not count, much as it was on Southern plantations before the war. This custom was extremely pleasant for me, affording opportunity to observe something of Peruvian life, of which foreigners in Lima or Arequipa are apt to see little or nothing.

The Vinatéa sisters greeted me with great cordiality, placing the house at my disposal, not in name but in fact. The household in which I was destined to pass many weeks before my task was finally accomplished consisted at this time of three sisters, Emilia, Julia Maria, and Natalia Vinatéa, and their uncle, Dr. Manuel R. Fernandez, a wid-

ower, whose daughter was absent at school in Lima, where also was the sister Natalia. In the house adjoining lived a sister of the Vinatéas, Señora Margarita de Valle Leon, a widow with five daughters of ages from three to thirteen years. Another married sister lived at the corner of the principal plaza. The family was very well off, each of the sisters owning two haciendas or estates, and all together, with two married brothers, a coal mine and a silver mine.

On entering the town we had found the streets practically deserted, as almost everyone was at the plaza (luckily not the Vinatéas who were in mourning), where a bullfight was in progress. My arrival was at an unfortunate time for my mission, as Yungay was now *en fête*, celebrating the dedication of a fountain in the large central square. On Wednesday the Bishop had with suitable ceremonies consecrated this fountain for which water had been piped from the hills above to afford a better supply than could be obtained from the *acequias* or gutters running through the city. To-day, Thursday, had begun a three days' programme of bullfights, the chief form of diversion in those smaller towns of Peru, too remote for theatrical companies or travelling shows, where people are thrown for amusement entirely upon their own resources. Bullfights being rather expensive, occur in any one place in the rural district at an interval perhaps of two years, when many from the neighbouring towns visit their friends to share in the festivities. Beyond making inquiries nothing could be done until these were concluded.

CHAPTER XV

A PERUVIAN BULLFIGHT. FIRST ATTEMPT ON HUASCARAN

COMFORTABLY installed in the Vinat a mansion I enjoyed a few days' visit. None of the family spoke English, but they seemed easily to comprehend my poor Spanish, while I could understand them if their words were slowly uttered. The Doctor, however, talked so fast that either his French or his Spanish was almost equally difficult, but the Se orita Emilia, often repeating his remarks, would make them intelligible. Peter, too, would occasionally act as interpreter. He occupied a room in a neighbouring dwelling, coming over to meals or whenever his services were desired. At other times he wandered about, making friends and amusing himself on his own account.

Friday afternoon I went over to the house of the sister who resided on the plaza, to witness from her balcony the bullfight. The performance was very different from the one I had seen in Mexico, otherwise I should not have gone. A spectacle where horses and bulls, in a one-sided game, are cruelly slaughtered, was too disgusting for me to witness to the end. Here, however, the bulls were not killed, nor the horses either unless by accident. The young men who entered the arena were alone responsible if they chose to risk their lives. They were not friends of mine, and if their families approved I had no occasion to worry. As a matter of fact, except in the case of a silly piece of recklessness on the part of some foolish, half drunken individual, the danger was less than in the big college games of football, and the performance was much less brutal.

About two o'clock occurred the grand entrance of horsemen headed by three marshals. In their tour around the

sides of the plaza they were showered by the ladies in the balconies above with bouquets, wreaths of flowers, and in a few cases white pigeons tied with long red ribbons, red and white being the national colours of Peru. The many beautiful horses excited my admiration, every one naturally riding his best steed and lending his second best to a friend destitute of good animals. It is said by some that the Peruvian saddle animals, as a class, are the best in the world, a few having five distinct gaits.

The bulls, fourteen in number, were supplied by the wealthy men of the district. As they came, one at a time, from a side street into the plaza, there would be a great booming of fire crackers to arouse the animals to activity. Men waving ponchos would advance on foot or horseback to incite the bull to charge. A small minority, however, took an active part in the proceedings, the majority remaining aloof in the corners of the plaza.

The bulls would stand still much of the time, occasionally pawing the ground. Several were quite fierce. It was an exciting moment, when, as occasionally happened, a man was thrown down and apparently gored; yet after the bull had passed, generally he jumped up and ran away. Two were less fortunate as a result of their own stupidity, caused perchance by intoxication. One man, instead of stepping to one side as the bull charged, stood directly behind his poncho. Falling, he remained motionless, until carried off the field. Another who displayed a large pink handkerchief as a poncho was also gored and carried out. An amusing incident was when one man having stumbled and fallen lay on his back and, as the bull lowered his head, kicked at him and then grabbed his horns. Someone threw him a poncho, a horseman rode up to distract the bull's attention and the man got off without a scratch though another was injured.

At intervals the band played fairly good music. The monotony was for us further enlivened by the passing around of *chicha* with nutmeg on top, a beverage somewhat like beer. Later in the afternoon ice cream and cakes were served.

Gentlemen coming up to shake hands with their lady friends made a brief call. I took several photographs, though to select the most exciting moment was difficult. Toward the east there was continually a wonderful spectacle: the great open plaza with the fountain in the centre, the horsemen, the bull, and the indians with their ponchos; the spectators, indians in motley attire on the ground, and gaily dressed ladies in the balconies, the white church with red roof; the steep rounded hilltop above showing fields of green and gold interspersed with a few dark trees, and towering higher far, the wonderful great mountain, a gleaming glacier covering the whole width of the lower slopes, the twin peaks of the upper portion rising, partly in perpendicular cliffs, but elsewhere covered with dazzling snow: a magnificent picture which an artist should bring back for the admiration of the world.

The skilful horsemanship was worthy of high praise, as outside of a circus it was the finest riding on the most beautiful saddle horses I had ever seen. The way the animals would go sideways in front of the bulls showed great skill on the part of horse and rider, but in two cases the horses were touched by the bull's horn. One beautiful animal, we heard later, was mortally injured, the only fatality during the several days' fête.

On one occasion a man who had been thrown down by a bull and rolled over three times, got up and walked away; whereupon his friends rushing out shook and pounded him as if he had done wrong; which seemed rather queer unless this was their curious method of congratulation. This bull, one of the liveliest of the lot, coming down to our corner made a great scattering of men, women, and children who were sitting and standing in front of the barriers. They fled one way or another, or slipped through the opening at the corner of the fence. The bull in pursuit discovered the opening and tried to follow. Success in his attempt would have been calamitous, as the street outside was filled with women and children. Luckily a man close by had the



Procession in Plaza, Yungay, before bull fight



Bull fight, Yungay

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pluck to rush forward and seize the bull by the tail. It was a powerful animal and one man could not delay him long, but in a second several others rushed up and laid hold with him. There was a moment of suspense as we wondered what would give way first. The united strength of the men proved too much for the bull. He backed a little and turned around when the men scattered nimbly, as he was in a good deal of a rage.

Several of the bulls, frightened by the noise of fire crackers, the waving ponchos, and the people, instead of attacking any one, ran away. One was so obviously harmless that the boys rushed up, grabbed him by the horns and tail, and ran along beating him, shouting, and having a great deal of fun, till the poor beast shook them off and escaped. This was a part of the programme designed for the amusement of the youngsters.

While most of the men on foot were indians or cholos, a few gentlemen thus entered the arena, among these, our friend, Señor Mariátigui who was very graceful, skilful with the poncho, and dexterous in stepping quickly aside. The festivities continued through Saturday and Sunday afternoons, accompanied by so much revelry, that on the last day few men were able to take part in the arena. It was necessary to wait for the indians to get sobered up before I could set out for the mountain.

A letter of introduction from Mr. Alexander Chambers in Lima had been presented to Señor Ildefonso Jaramillo of Yungay, a man said by Mr. Chambers to be better acquainted with the indians of that vicinity than any one else, and therefore the most competent person to make for me a good selection of porters. Mr. Jaramillo at once interested himself in the matter and in this and later expeditions was most useful, kindly going to much trouble to procure the best men obtainable. During the period of enforced delay various offers of escort had come from gentlemen of the place. I knew nothing of the skill or energy of my would-be companions save that all were alike inexperienced, mountain

climbing not yet having become a fashionable sport in South America, as in Europe. With my two small tents, a large retinue was impossible, but it seemed wise not to decline any proffered assistance, later selecting for the work the one or two who seemed the most efficient and capable.

When I first saw from Yungay magnificent Huascarán towering far above the valley, I was filled with dismay at my own temerity in dreaming for a moment of its conquest. Many thousand feet rise the rocky slopes and the well rounded earth covered buttresses, supporting the broad ice-clad substructure of the twin peaks, which at a startling angle pierce the blue sky above. The immense glacier below the peaks was so visibly and terribly cut by a multitude of crevasses that it seemed impossible for the most skilful, much less for men wholly inexperienced, to find their way through such a maze.

For the purpose of studying the glacier at closer range, I walked one morning up the hills back of the town to a height perhaps 2,000 feet above the valley, which at Yungay has an altitude of 8,300 feet. A nearer view through a good glass was not encouraging. It signified nothing that an Englishman, Reginald Enock, had the May previous gone a short distance over the ice; it would obviously be much easier to negotiate at the beginning of the dry season than at the end. While some gentlemen of the town considered this the only practicable place for an effort, though all believed the ascent of the mountain impossible, others reported that on the east side one could ride much higher, to an altitude of 17,000 feet, instead of 10,000, and that other difficulties would there be correspondingly less. Those who favoured the west side declared that on the east great danger from avalanches would be incurred. With these conflicting stories I hardly knew how to decide; but as it seemed preposterous with my poor assistance to dream of overcoming the difficulties which I saw, and further, as I had heard of the wonderful scenery of the Llanganuco Gorge (through which lay the pass to the east), which I greatly



Setting out for east side of mountain



Llanganuco Gorge

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desired to visit, I gave the more willing heed to those who favoured an attempt on the opposite side of the mountain, and finally determined on this route.

The indians who had been engaged as porters having gone ahead with the baggage, about two o'clock on the afternoon of September 28, our cavalcade set forth. In addition to the members of the party, several gentlemen, including the Governor and other persons of prominence, had assembled to see us off, so that quite a cavalcade clattered out of the patio. Instead of proceeding directly towards the mountain, at the instance of the Governor, who riding by my side was leading the way, we turned in the opposite direction to the right then to the left and left again, in order to pass through two of the main streets of the town, evidently, as I then perceived, as a spectacle to the inhabitants. If our cavalcade of a dozen or so did not present an imposing appearance, we were of sufficient consequence to have called out a goodly number of spectators who lined the narrow sidewalks and stood in the doorways along our route. How many of the dozen accompanying me or which ones were contemplating the ascent of the mountain, I had no idea, until at the edge of the town, the Governor and several others bade me a cordial good-bye with best wishes for a successful ascent.

Presently a discussion arose among my companions as to which we should take of two paths, one on each side of the gorge. That by which we at length proceeded, as developed later, had doubtless been insisted upon because of a habitation part way where liquid refreshment could be procured. The angle of the foothills is steep, and the way was picturesque, at first often between high adobe walls with overhanging trees, past adobe houses and pretty gardens, sometimes along the bank of a rushing stream, to a more sparsely settled but cultivated hillside. At a house on the rounded hilltop a halt for refreshment was suggested. Promptly declining the proposal I rode on with one or two others, but afterwards perceived that my refusal was a mistake, as the

gentlemen who paused might in my company have made their stay less protracted.

After two hours of rapid climbing, we approach the Llanganuco Gorge, which on the north side of Huascarán, between that mountain and Huandoy, is the best and most frequented pass on this side of the Huailas Valley. After entering the gorge which is four miles in length, we continue to ascend, the walls on both sides becoming more steep and rugged until cliffs rise perpendicularly above our heads to a height of several thousand feet. These call to mind El Capitan in the Yosemite, but seem of more impressive grandeur, some persons might say more gloomy. The valley is narrower, perhaps a quarter of a mile wide, and the walls on either side rival each other in height. Most of the way we are close to the north cliffs some distance above the main floor of the cañon over which great rocks are scattered. An irregular line of trees and bushes indicates the course of a rushing stream.

The enclosing walls are of varying outlines; at the north, half way through, several enormous, almost triangular blocks disclose between and back of them a glimpse of great snow fields and glaciers high above.

Some excitement was created when we were overtaken by the gentlemen who had delayed for refreshments. It was immediately evident that at least one of these, not altogether recovered from the revelry of the past week, had tarried too long over his cups. He would dash madly by on the narrow path shouting and singing; he would endeavour to enter into conversation with me, polite but effusive, halting his horse directly across the pathway, and becoming rather abusive when checked by the others. Alarmed lest some accident ensue, I at length prevailed upon Peter to induce his friends to keep the gentleman well in the front or rear.

Upon reaching the culminating point of the gorge, the altitude of which is 12,000 feet, we behold before us a beautiful green lake half a mile long, covering almost the

entire width of the valley. A splendid snow-crowned mountain in the distant background is in striking contrast to the sombre cliffs on either hand. Here we gaze at the south ten thousand feet straight up to the summit of the north peak of Huascarán, where after long years I was destined one day to stand. Our pathway, in places hewn out of the solid rock, in others supported by tree trunks, almost overhangs the so-called fathomless lake a hundred feet below, into which a horse's stumble might easily precipitate one; but the animals climb veritable stairs with ease, though going down in an especially dangerous place, I am advised to dismount. Beyond this lake we find another, then a broad meadow where cattle are grazing. Near this end of the gorge a pretty wavering waterfall comes over the northern cliff, descending in feathery spray in one leap possibly 2,000 feet. At the end of the dry season, it is but a small affair; five months earlier it must present a spectacle of far greater beauty. Several of the young men caused further excitement by dashing madly over the plain, shouting, and chasing the bulls there feeding, so that I was thankful at dusk to arrive in safety at a building at the end of the gorge where travellers find refuge for the night. In the long low ranch-house, the various rooms, the property of different persons, were all opened for our benefit. Early next morning we pursued our journey, with numbers further reduced by the departure of several gentlemen on their return to town.

A short distance beyond the ranch, having quite passed Huascarán and its buttresses we climbed by a steep zigzag path on our right up to the floor of another valley parallel to the Huailas lying between Huascarán and other mountains farther east. Riding south until we had rounded the big buttress of Huascarán, we turned again to the right towards a narrow defile leading to the east face of the mountain. For a while the horses scrambled over the rocks in remarkable fashion, but, as we had now left the path, there was danger of their breaking their legs in holes which were

concealed by long grass and bushes, so that we soon felt compelled to dismount. It was a struggle of several hours up the side of the valley to gain the level of the hollow between the lofty buttress on our right and a long low ridge on the left. After a rest and luncheon the way was pursued in the defile, though with much murmuring and expressions of fatigue. I had hoped on this day to reach the snow line, but was forced to consent to encamp while still a long distance from the mountain. In front was Huascarán, the south peak only visible, behind us at the east and south other splendid peaks, one, whose beautiful sheer snow slopes looked even more impossible than those of Huascarán.

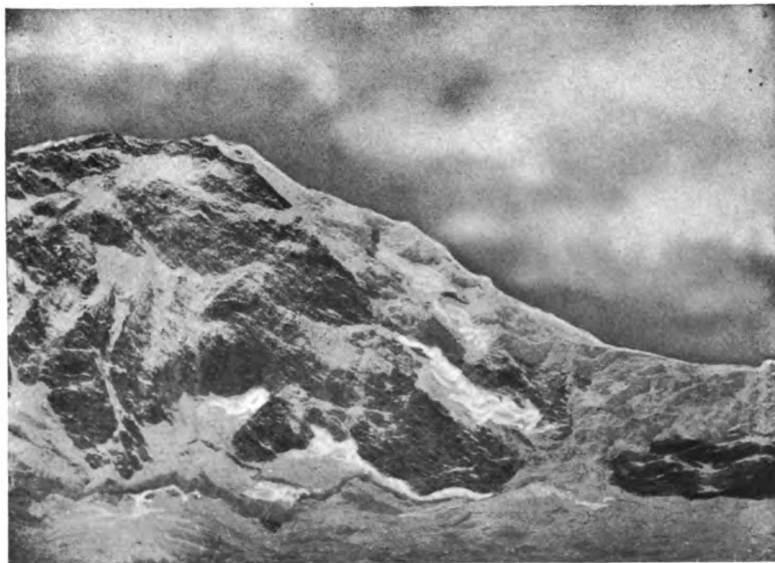
The Bolivian Cordillera Real is a single range of snow-covered mountains. I was surprised to find here a complex group like many in Switzerland, but these of far greater height, with vaster walls and slopes of snow. A climb to the top of the ridge on our left, the south, revealed the fact that this was an immense lateral moraine of a glacier several miles long sweeping down from Huascarán; the ice far below was so covered with stones and gravel that it took a second glance to disclose a multitude of deep blue crevasses which told the story.

Some of the young men brought up and planted on the ridge a large Peruvian flag which the Governor, Señor Resendo Arias, had asked me to leave on the summit or even on the saddle of the mountain should we arrive there. This my enthusiastic companions already wished to float above them. Fairly level spaces having been cleared for the erection of the tents, three of us occupied the smaller one of silk, while the rest of the gentlemen took possession of the larger, leaving the indians to get along outside as best they might. Our camp was at an altitude of approximately 15,000 feet and we slept all we could which was very little.

The day following we continued along the moraine of the glacier towards the mountain, sometimes in the bottom of the gully, again on the side or along the top of the moraine wherever the way seemed easier. A flock of *venado*,



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Llanganuco Gorge



South peak of Huascarán from East

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or deer, crossing the gully some distance ahead, skipped swiftly up the steep buttress on the right, tempting to pursuit one of the young men who had a rifle, but his shots were without effect. As we advanced we perceived that the appearance and formation of the mountain on this side was very different from the other, tongues of rock running between the glaciers of the north peak, now in view, so that it was possible to go much higher before touching snow than on the west side. But not to the summit, or even to the saddle would the rocks lead us. Far above, two frightfully crevassed glaciers crossed the cliff-like slope of the north peak, which then became a practically perpendicular wall overhung with an immense snow cornice.

Apparently the most feasible route was to follow up the moraine and the rocks at the right until we were well towards the *col* or saddle. Then it would be necessary, for the avoidance of a great *berg-schrund* in the centre, to cross the crevassed glacier 1,000 feet below the top of the *col* to its left hand corner, thence, after getting above the *berg-schrund*, to take a diagonal towards the top of the saddle. Camping here we should the next day attempt whichever peak from this point appeared the more practicable. I could, indeed, perceive lines down that left hand corner, and overhanging snow above, which indicated that this was the path of an occasional avalanche, but the right hand corner was worse. We saw and heard several masses of snow come thundering down in that quarter, while the middle was impassable from great crevasses. As we slowly and painfully toiled upward, suffering both from the heat and the rarefaction of the air, the prospect did not become more inviting or encouraging. It was magnificent to look at, but to walk over — that was a different proposition. To-day the horses might have been useful, as here we could see where we were going; but they had been sent back to await us at the ranch.

At two o'clock we halted at a point on the rocky slope of the north peak which Peter declared was the last spot available for pitching the tent. He had gone on ahead and some-

what higher, returning to this place before my arrival. I was tired enough to accept his verdict without demur; tired and hungry, too, but when I requested Peter immediately to open the provision bag, he refused to do so until the tent had been set up in readiness for the night. As only the small one had been brought, the porters and one of the gentlemen after luncheon retreated to the camp below, leaving five of us to occupy the tent. This made altogether too close quarters, and at an altitude in the neighbourhood of 17,000 feet I passed a practically sleepless night.

The next morning only three of the porters came up as directed. Before their arrival Peter had admitted that space to set up the tent might possibly be found still higher. Accordingly we advanced another thousand feet of altitude until we were quite on the east side of the north peak, whence we had hoped the next day to set out for the saddle. But meantime we had discovered that all parts of the mountain under and around the saddle were so swept by immense avalanches that it would be foolhardy to attempt the ascent there. It is one thing hastily to cross the track of snow slides, another to be exposed for hours to their terrible and resistless might.

In the afternoon we scanned the rocks, and reconnoitred to see if by crossing a small glacier on the right, we might safely pursue our way upward. The glacier, however, was so seamed with crevasses that it appeared to be more holes than ice and no one of the men was willing to venture upon it. Nothing remained except to climb the rocks on the morrow until we came to the ice above and, if it were practicable to cross there, continue as far as possible up the cliffs at the right. An ill-timed snow storm lasting several hours, which came on about half past four in the afternoon and covered the rocks with a few inches of snow, made the early start I desired impracticable; for we must await the melting of the snow before we began our climb unless we wished to commit suicide. Another young man at my suggestion had gone



Saddle and North peak of Huascarán from East



Highest camp, east side of Huascarán, about 18,000 ft.

U of M

100

below for the night, which greatly increased the comfort of the remaining four.

After a leisurely breakfast the next morning, when the new fallen snow had practically disappeared in the sunshine, we were ready for our final effort. I requested Peter to take along the climbing irons in case we found it possible to cross the glacier above, and also my camera, but he refused to carry anything except himself. I told him he need not trouble to do that, for if he carried nothing he was not of the slightest assistance. I did not intend to use the rope, for on the rocks with an inexperienced person I felt safer alone. Yet, though evidently averse to the undertaking, Peter had too much pride to be left behind. Believing that his judgment was better than mine, he insisted upon going his own way, while I set out in another direction with Don Arturo Alba and his major domo, Aurelio. From Señor Alba's account of the expedition, published in his paper, *La Prensa de Huailas*, I quote the following:

"To the right and left were impassable walls of snow. We began, therefore, to scale the perpendicular rocks in front. Three hundred feet above the flag (which was now waving near the tent) an immense rock, sloping dangerously, obstructed our passage. The courageous American woman, notwithstanding that below her feet was a precipice reaching down to the glacier, took the cross which Aurelio was carrying and resolutely traversed this dangerous place where at every step she was liable to go down to certain death. Peter had ascended a chimney and both together went on up the cliff to a small ledge at the edge of the ice above; from there to the summit was still 5,000 feet. From the place where we were standing I heard the terrifying crackle of the snows above our heads. Aurelio and I descended to the tent. From there we saw Miss Annie erect the cross at a height of 19,000 feet and then descend rapidly."

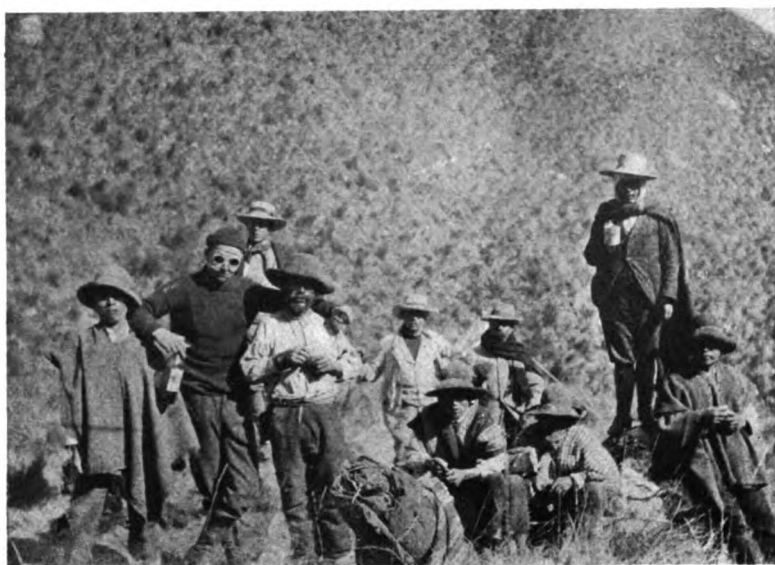
I remember nothing of any place that seemed especially dangerous; merely that at a certain point Señor Alba decided

not to go farther, so I took the cross and went on, presently joining Peter as our ways came together above. In one place, indeed, I passed along a very narrow ledge with a nice drop below, but the foot holes were quite sufficient and with a steady head, without which I should hardly be climbing, there was not the slightest danger. The cross had been made for me in Yungay for the same purpose as that in La Paz, that it might remove any possible superstitious prejudice on the part of the indians, and perchance even be an incentive to them to do their best. This we set up at the edge of the glacier, which without rope and climbing irons it was impossible to traverse.

Under existing conditions further advance was impracticable. On our return to the tent we found the two young men who had come up from below preparing to carry up the Peruvian flag and place it by the side of the cross. Meanwhile, I entered the tent to make preparations for our descent. I quote again from Mr. Alba:

“With a great roar the ice above our heads was broken off. The avalanche threatened to overwhelm us. Resigned and motionless, we awaited a certain death; but the ice, broken to pieces, fell in bits at our feet. Not so the stones which it tore off, one of which seriously threatened my life, passing like a cannon ball half an inch from my head. This warning hastened our retreat. We had not proceeded 500 yards when a formidable avalanche swept the place where our tent had been standing.”

Unfortunately, I as usual missed the thrill of these exciting scenes, the first because, until I saw, as I rushed out of the tent, the stones rolling a short distance away, and the danger was over, I had believed the tent, close under the wall, to be in a perfectly safe place; the second, because, being on the way down, I did not see the avalanche at all. Señor Alba chanced to pause and seat himself on a rock for a farewell glance, just in time for the sight. After the first avalanche the young men promptly dismissed the idea of going higher, the tent was taken down as quickly as possible,



Companions on east side of Huascarán



House of Indians

U of M

1840

and the indians who had come up with the young gentlemen, with speed and alacrity descended to the camp below.

On the way up I had kept along very well with the rest, sometimes ahead of all except Peter, who evidently could have been an efficient helper had he been so disposed; but on the way down, I lagged behind. I have found going down hill, especially over rough and jagged stones, always more ungrateful to the feet than the same amount of climbing. The others skipped along at a comparatively rapid rate, at this altitude the difference in the amount of effort needed for ascent and descent being tremendous. But that made no difference to my feet, which ached more and more. There was no need to hasten; as we could descend only to the lower camp that day, so I took my time and sat down occasionally to enjoy the wonderful mountain which from this side I should not be likely to see again. I have not yet forgotten those massive rock walls of the two peaks, nor those great avalanches near the saddle, beside which those I had seen in Switzerland were mere babes. Some of them lasted so long that I was able to pull my camera from its case and take a shot at them before they disappeared. It was evident that we were too late in the season. The sun, now practically overhead, by its heat causing these avalanches, made further effort on this side impossible.

Breaking camp early the next morning, we went down to the ranch, pausing near a cluster of huts for a few photographs. The indians were a picturesque if dirty lot, pleasant and friendly, and these not so averse as some to having their pictures taken. In the afternoon we went on through the Llanganuco Gorge, this time on the south side of the lakes, arriving at Yungay before night. Though tired, and disappointed in not having gone higher, I rejoiced that I had had the privilege of beholding scenery more magnificent than any which had previously come within my vision either in Europe or America.

CHAPTER XVI

A SECOND ATTEMPT ON HUASCARAN

THE west side of the mountain, it was now evident, afforded the better route to the summit, since on account of its different outline it presented no danger from avalanches. Though I could not expect, in the present condition of the ice, to reach a great height, it seemed desirable to learn whether the indians would be willing to go upon the glacier, and if so whether the labyrinth of crevasses was as bad as it looked.

I now dismissed Peter, who had proved of no real service, declaring everything to be impossible and groaning over his discomforts; he hadn't slept, he had a headache, he couldn't eat this, he didn't like that; in no respect amenable to my wishes, and tiresome with his voluble protestations. He was a strong, well-meaning fellow, but more accustomed to swearing at the members of a gang of workmen than to the society of ladies. So I sent him on his way back to Lima without hinting that I thought of making a second attempt. His enthusiasm for this sort of employment may be judged from the fact that I learned after his departure that he had declared that he would not take such a trip again for a million dollars. Evidently a person in that frame of mind would not be a very helpful assistant.

For my next expedition I decided upon a smaller and select party of four indians only, recommended by Señor Jaramillo as being capable and thoroughly reliable. Although I did not speak Spanish very well, I could make the indians understand all that was necessary, and I thought I should get on better with them alone. The indians here, as a class, are of more prepossessing appearance than the Aymarás in Bolivia, generally faithful and trustworthy. Two of those I had before were going again and two new ones. Never

having the opportunity to train for my mountain climbing as I should like, I felt that I needed every particle of my strength for absolutely necessary work. I have had none to waste in carrying things. Though I had a pretty little 32-calibre revolver which weighed but a trifle, I had no desire to burden myself with it unnecessarily. Accordingly, I inquired of Señor Jaramillo, "Shall I carry my revolver?" "No," he said, "you don't need it," so I left it behind at the Vinatéas.

The indians had no suitable footgear or underwear, and neither could be purchased in the place. One or two had poor shoes, the rest none at all. After some inquiries as to what was possible, I purchased some skins which were to be put over their feet when they went on the ice, also some woollen cloth in which their feet would previously be wrapped. Additional climbing irons had been made which would go over the skins, also ice axes or alpen-stocks, so that each man could have one. As for clothing, I urged them to wear the warmest they had and to bring as many ponchos as possible.

Five days after our return from my first expedition I quietly set out on the second. The porters leaving on foot earlier in the day, I went in the afternoon, accompanied by Señor Jaramillo, to a mine, Matarao, 2,000 feet above the town, from which Mr. Enock had set out for his climb. Riding south for an hour along the valley to a village called Mancos, we then turned to the left following a very poor and stony bridle path up the mountain side, on which were many cultivated fields and here and there a cluster of dwellings. It was dusk before we arrived. The Italian engineer was unfortunately absent in Caraz, but the hut which he occupied when there was opened for my benefit, and I had the pleasure of sleeping on a bed of boards above an adobe bench, rather than on the floor. The mine, which was worked for both gold and silver, was the joint possession of three persons, one of whom was Señor César Cisneros, the Sub-prefect of Yungay, the gentleman who had accompanied

Mr. Enock a short distance on the glacier. He was much interested in my undertaking, though the present condition of his health prevented his participation in my enterprise. On my visit to Yungay in 1908 I was grieved to learn that his death had occurred in 1907.

One or two indians who lived near the mine joined my company of porters in the morning to direct us by the best way to the snow line. From the edge of the glacier the side of the mountain descends several thousand feet at a very sharp angle, so far as to make a considerable gully between this and the rounded cultivated hillsides that one sees from the valley below. This gully runs down towards the north, the stream at the bottom emptying into the one that flows from the Llanganuco Gorge into the Santa River in the valley. At the south end of the mountain a ridge comes out from the south peak just below the snow line, here higher than in the middle of the west face. A short distance from the mountain, this ridge, turning north, forms the enclosed head of the gully and gradually lowers until a trifle north of Matarao it breaks sharply off, down to the rounded hilltops which from this point on remain as the west wall of the gully.

Accompanied by Señor Jaramillo I rode to the top of the ridge and some distance along, until the way was altogether too bad for the animals, when he departed with them. The rest of us with frequent halts for breath continued along the narrow uneven *arête*, till near the end we climbed down into a small gully where we had luncheon. From this point we proceeded directly upwards, where bushes and stunted trees grew well toward the ice. The indians who had accompanied Mr. Enock and Señor Cisneros led the way in the direction which they had followed and which I approved, as it seemed wise to go as high as convenient before entering upon the glacier. Moreover, in front of the south peak, the glacier was not so terribly crevassed as farther north below the saddle and the north peak, which made the ascent here still more desirable. It is hard work to climb a steep and rocky slope at this altitude, even when carrying nothing, and it was

nearly five o'clock when at length we set up the tent within a few rods of the glacier, on a space as nearly level as we could find, at least 1,000 feet higher than where the ice comes down in the middle and at an altitude of something over 15,000 feet. My aneroid barometer, which was a trifle too low on the pass of the Black Range, indicated 15,800 feet. Enock gives the height of the snow line as 14,000 feet, which probably means the average line rather than the highest or lowest point of the glacier. This may well be the case in May, at the close of the wet season, for five months of tropical sunshine would probably curtail the lower limit of snow 1,000 feet.

The tent was hardly pitched when a small snow squall warned us of the approach of the rainy season and the possibility of bad weather; but the night was fair and we hoped for nothing worse on the morrow. One man from the mine having begged permission to take the place of one of my porters and another being added, six persons were now crowded into my little tent, only 7 x 9 feet. Obviously there was not sufficient room for all to lie at full length, and after my sleeping bag was stretched by the door the men curled up as best they could. The indians often sleep sitting, leaning against a wall, so this to them was no hardship, and their snoring soon indicated that some of them were slumbering.

I did not sleep much myself; not that I felt at all afraid, for it was evident that the men would be held responsible for my safety. I of course carried no money, and there could be no possible motive for ill conduct. Indeed, the men seemed to feel a pleasure in their responsibility and the confidence reposed in them, and I have no doubt but that I was much safer than I have been at times in our great cities, although I never happened to meet with any unpleasantness there.

Early in the morning we breakfasted and arranged the loads. At the edge of the ice all put on climbing irons and were tied with the rope. After some discussion, it had been

arranged that a little chap named Jacinto Osorio, who had worked in a mine and knew how to wield a pickaxe, should lead the way, that Adrian, a stalwart fellow, major domo of Jaramillo, should go second, and I third; Adrian second, especially because, if Jacinto should fall into a crevasse, he would be better able to hold him or pull him out than I. It was desirable that I should be as far forward as possible in order to give directions about the route. The other three men followed in the rear. I instructed them carefully in the use of the rope, telling them to keep as far apart as they could and hold the rope taut, so that if any one fell into a crevasse there would be the least jerk possible. Thus arranged we began our snow climb at a point below the south peak, a little to the right of its central portion.

It seemed odd to enter upon this enormous glacier, covering the entire west slope of the mountain, with five men none of whom had ever been on the ice before; but the leader seemed intelligent, careful, and courageous, the ice proved less difficult than it had looked from below, and, far from realising the tremendous difficulties of the task before me, I began to feel hopeful of camping that afternoon in the saddle. From my examination of the mountain through a glass, the most practicable route had seemed to be from this point straight up towards the southern peak until beyond the worst crevassed section farther north, then across to the left nearly to the foot of the north peak, and thence up the saddle between the two. But in spite of my advice that this course be followed, once on the ice, the leader pursued the line of the least resistance, that is to say where in the immediate vicinity the fewest and smallest crevasses appeared, so that we presently found ourselves taking a diagonal to the northeast towards the north peak and already in a line with the saddle.

Some distance above us there now appeared a great ice wall extending for a long distance, absolutely impassable to novices, if not to experts. In one place at the left there was a break which might possibly be negotiated, but when we had proceeded thither, Jacinto declared it impossible and

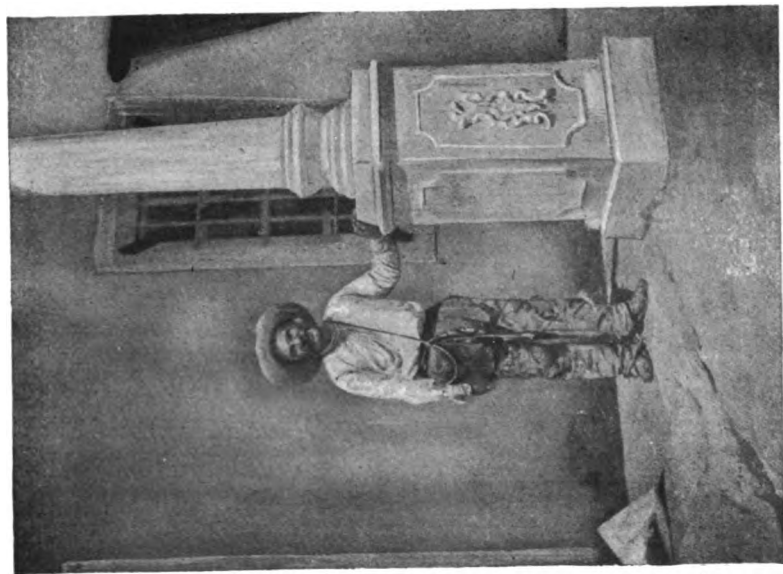
chose another route which led down instead of up and proved to be a great mistake. He cut his way around a difficult corner with ice towering thirty feet above and a gulf yawning fifty feet below. By this traverse we hoped to come to easier going, but alas! it was only the beginning of evil.

For the next two hours we turned and twisted among towers and pinnacles in a labyrinth of crevasses far worse than anything I ever saw in Switzerland, up and down, around and about, crossing snow and ice bridges, cutting steps, walking now at the bottom of an ice gully, oftener on a narrow table or bench, with crevasses hundreds of feet deep on either side, most unpleasant of all passing under ice pinnacles, which, like leaning towers, rose twenty or thirty feet above. For the sun was hot, we could see the water dripping and hear it gurgling far beneath, and knew not but these masses might at any moment topple over. We seemed to proceed from bad to worse, yet having passed so many ugly places we were disinclined to retrace our steps, every moment expecting that a little farther on our difficulties would cease. Several times our valiant little leader declared that there was no way farther. Then I would advance to his side and after carefully scanning the field point out a possible route. He would promptly assent to try it, and on we would go.

After two hours of such exciting labour, during which no one suggested rest or refreshment, on coming once more to a halt, rebellion broke out among the rear guard. They insisted upon going back, declaring farther advance impossible. I represented to them that it was much better to go on than to return over the dreadful way we had come. We were now on a narrow table, ten feet wide or less, with crevasses broad and deep on each side, at the end a perpendicular drop to another shelf or table. I pointed out a place at the corner where we could climb down six or eight feet to this, in spite of yawning crevasses on either hand; an ice bridge led to another table, a snow bridge to a higher plane beyond; these passed, it looked as if we might be

pretty well out of the labyrinth, to where it was comparatively smooth sailing. The leaders, Jacinto and Adrian, were willing, but the others refused to advance unless I would double their promised pay. This, perforce, I consented to do, with the proviso that they continue at least to the saddle this same day, the possibility of which I had begun to doubt. All agreeing to this, Jacinto carefully cut his way down while Adrian held the rope so that if the former slipped he would suffer no harm. Following in his footsteps, we then passed with light tread over an ice bridge barely two feet thick from this table to the next, crossed a narrow crevasse to the one following, and soon found ourselves on safer ground or ice, where we could take some needed rest and food, as it was already one o'clock.

In the early afternoon when again on our way a snow squall reached us, but so quickly passed that we did not pause in our course. Soon, however, the indians urged fatigue and a wish to stop for the night where there was a fairly good place for the tent. As yet we were not more than half way to the saddle, so much time had been lost in that terrible labyrinth of crevasses into one of which Jacinto's hat had disappeared from view. Not heeding their suggestion I urged them onward, but presently observing the rapid approach of a very black cloud from around the corner of the south peak, seeing no good camping place ahead, I decided that it was the part of prudence to retreat to a nearly level spot below. The tent was pitched but not well fastened when, about four in the afternoon, the storm burst upon us, a genuine snow storm, which made us thankful to be under cover. It seemed almost as if the snow *poured* down, faster and thicker than I had ever seen in my life before. This continued for hours until several inches had fallen. It was cold, too. With two suits of all wool underwear, other garments, and my sleeping bag, I was chilly. It is not strange that the men, with their ponchos only, suffered from the freezing temperature.



Jacinto Osorio



Glacier, west side of Huascarán

1901

During the night I meditated upon the morrow. What should we do? A whole day would be required to reach the top of the saddle, another to attain the summit: at the least, two nights more on the ice, with the probability of success small, in view of what we had encountered already. I could endure the hardship well enough, but could the men? It seemed cruel to ask the indians, thinly clad as they were, to proceed farther; probably they would not have gone if I had. In the morning, therefore, after a sleepless night on my part, and a little snoring from some of the men, I decided to abandon the attempt. I put my name and the date, according to custom, in a bottle, though as a memorial it was useless. It would soon be buried in the snow, and if ever it came to light, it would be at the edge of the glacier 2,000 feet below, which might lead some persons to suppose that that was as far as I had been.

Our camp, according to the aneroid, was at an altitude of about 17,600 feet. Desiring to avoid the dreadful maze of crevasses on the descent, I suggested going higher towards the south, which we did for several hundred feet, so that we may have reached a height of approximately 18,000 feet. We were very near the foot of the south peak. My idea was to go some distance farther south until we were beyond the labyrinth, then straight down to the point where we had entered upon the ice. Jacinto and Adrian, however, thought we should do better to go down on the north side of the labyrinth, to which I consented, so we turned about face. Half way down there were a good many crevasses and some step cutting, but the worst of the maze was avoided. When we paused for luncheon, Jacinto was too tired to eat. Besides cutting all the steps, he carried a small pack. I tried to induce him to let one of the others take this, but he resolutely refused. He was a faithful little chap, with valour enough for a man twice his size. With a few more like him, much could have been accomplished; but, as I discovered when at last the mountain was climbed, it would have been

suicidal to have gone much farther without skilled assistants. Then I did not fully appreciate the difficulties that lay above.

By the time we left the glacier for the rocks, it was in the neighbourhood of three o'clock. A few articles, deposited near our first camp, were hunted up. Meanwhile I proposed descending to the mine. Though tired, the prospect of a roof over my head, and an ordinary evening meal, was attractive enough to enable me to brace up for the long walk down. Jacinto first agreed to accompany me, then one or two others, while those who wished I allowed to remain in the tent over night. It was a weary way, but having taken a short rest we made good progress, better I think than I ever did again. By dark we were once more at the mine, returning to Yungay the day following.

On the whole I was fairly well pleased with this venture; I had been 1,000 or 2,000 feet higher than Mr. Enock, though still lacking at least 2,000 feet to the top of the saddle, above which the twin peaks rose several thousand feet more. My idea of the mountain's height at this time was vague, merely from 22,000 to 25,000 feet, as it had been estimated by others. It seemed probable that it might turn out higher than Aconcagua, and thus gain the distinction of being the loftiest mountain on this hemisphere. In any event I felt sure that it exceeded Sorata, hence the summit of Huascarán, rather than that of the Bolivian peak, became for the future the goal of my ambition.

Furthermore, I had discovered that some indians were bold enough to venture upon the ice and had no superstitious prejudice against climbing the mountain. If suitably equipped with warm clothing, proper foot gear, and ice axes, it appeared that these men would prove valuable assistants and might even render Swiss guides unnecessary, especially if one had not the funds to obtain these. At a better time of the year, early in the dry season, May or June, when the sun is far to the north, the heat in the middle of the day not so great, the crevasses fewer in number, and the glacier

well covered with snow, the ascent to the saddle, I thought, would be a comparatively easy matter, the *arêtes* above could probably be climbed with care. Now with daily recurring snow storms, it was folly to think of another attempt, so I prepared to return home feeling that, if I had not accomplished all I desired, I had done enough to show that I was not insane in believing that I was personally capable, with proper assistance, of making the ascent of a great mountain. I should bring to the attention of Alpinists a new and accessible territory, worth visiting not merely to make a record, but to behold a glorious collection of mountain peaks, some of which will long defy their would-be conquerors.

CHAPTER XVII

MY HOME IN PERU. LIFE OF THE INDIANS

ON one of my return voyages from South America, I made the acquaintance of an agreeable German gentleman who was going home to see his mother. In conversation one day he chanced to inquire, "Where is your home?"

"Where my trunk is," I replied. "No," he said, "but where is your real home?" "Where my trunk is," I reiterated. "Just now here, presently in New York. That is all the home I have." "Why!" he said, "you poor thing! I never heard of such a thing!" (He had two homes himself, one with a Spanish-American wife in Guayaquil, another in Hamburg.) "O," I rejoined, "that is a common condition among people of our Eastern cities." I had forgotten for the moment my home in Peru.

When in 1904 I was in the saddle ready to leave Yungay, my new friends seemed much grieved at my departure. They have a way, when bidding farewell, of saying: "Adios! Hasta mañana!" or "Hasta luego!" "Good-bye till tomorrow," or "till soon." To me they said mournfully, "Hasta quando? Hasta quando?" "Till when?" To which I replied, "Perhaps next year, perhaps never. Who knows?" then adding, as I had once previously suggested, "If my lectures do not go well, maybe I will come back to teach the children," (the five daughters of the widow). "O come back!" they cried in chorus, "but not to teach the children!" "Como hermana, como hermana (as a sister), shall you live with us!"

Thus, after much wandering to and fro in the earth, in spite of many friends and relatives, for the first time I had offered me a genuine home; and whenever I feel that my labours in my own country are unappreciated, I shall hie me

away to the little town of Yungay, where if too old to climb those gigantic peaks, I may still rejoice in the beauty of my peerless Huascarán, one of the most fascinating of the world's mountains, there to dwell in a climate that is a perpetual early June, among kindly hospitable folk, where life, if passed in uneventful fashion, would be peaceful withal; in striking contrast to the strenuous days of New York City.

It is a fashion, I have heard, for the Spanish-American people in their extreme of courtesy to declare to their guests, "The house is yours!" or if you should inquire whose horse or whose poncho is that, to respond, "Mine and yours also!" if one expresses great admiration for something, to say, "Take it. It is yours." Some Americans, not realising what should be perfectly obvious, that these are merely polite phrases, according to the custom of the country, meaning no more than the ordinary compliment of the day with us, get into trouble by taking these phrases too literally, and then accuse the South Americans of hypocrisy and insincerity.

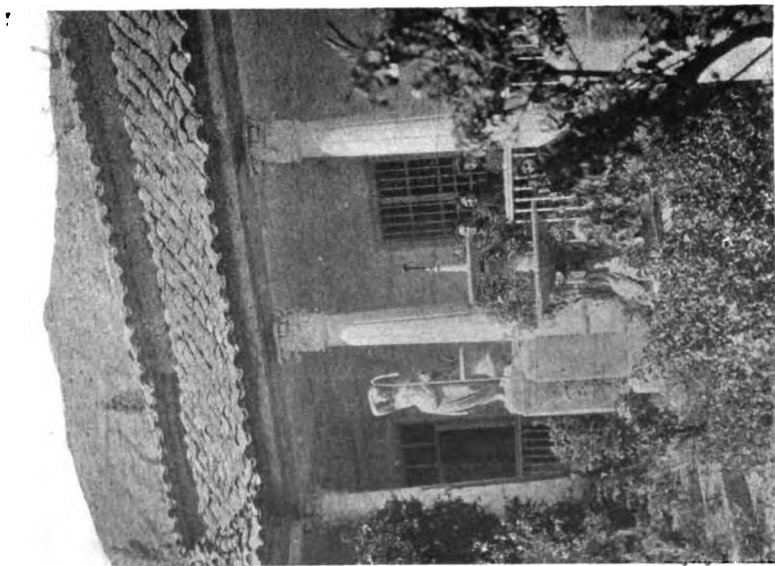
Doubtless some persons have received scant courtesy or rebuff when accepting what seemed genuine and urgent invitations. Such things have happened also in New England. For myself it has so chanced that I never heard these common phrases, yet horses have been placed at my disposal for days and weeks, houses have been at my service, and if in Yungay the mansion did not belong to me, I was still better off, for its comforts were mine with none of its cares.

My home, like the majority of dwellings in Peru, is for the most part a house of a single story. Like nearly all Spanish-American dwellings, it is built around one or more courts or patios. Visitors arriving on horseback, as well as persons on foot, pass through a wide vestibule into the main patio, surrounded on all sides by a covered corridor or veranda, upon which open the principal rooms of the dwellings. The drawing room here, as often, is opposite the entrance; a large sitting room in more general use is at the left. The former is furnished with Brussels carpet, large mirrors,

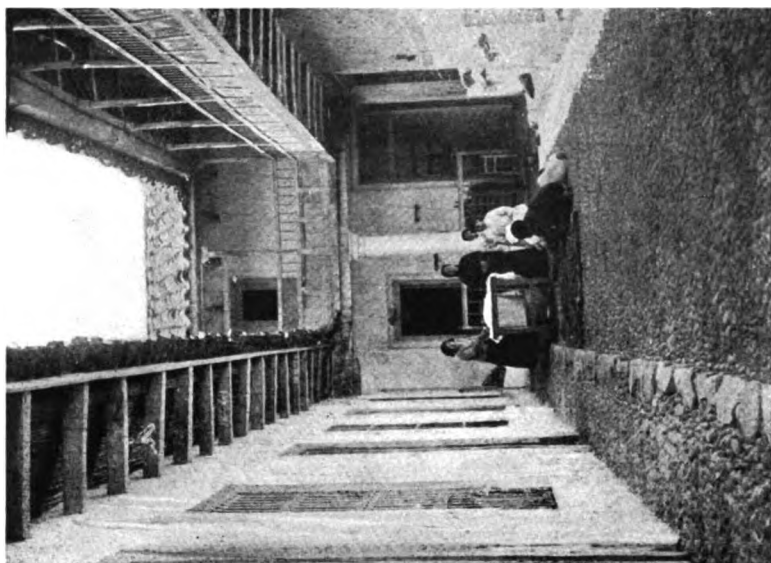
centre tables, and upholstered furniture, if not precisely in accordance with the fashion of the moment, yet expensive and elegant. A piano, too, is here, as in every house where I was entertained.

How did the great mirror, the heavy furniture of European manufacture, the piano, reach this town ninety miles from the sea, whither no railroad or carriage road leads? In their journeyings to and fro the people, old and young, fat and lean, must obviously travel on horseback. Freight is carried by burros or mules. A mule, whose average load is 250 pounds, cannot carry a piano, much less can a burro. What then? What remains but human beings? by whom the most difficult work of the ages has always been performed. After coming in carts thirty miles to Moro, pianos and other heavy articles which cannot be dismembered are brought the remaining sixty miles, up over the pass in the Cordillera Negra, 14,700 feet above the sea, and down that steep path into the valley, on the shoulders of men. Luckily for the well-to-do, labour is very cheap, thirty cents a day, for such service; but even so, the transport requires a good many men for a long time, adding materially to the cost of the articles.

On the right of the patio is a large room used in 1906 as the private parlour of a suite including two other rooms, then occupied by the bride and groom, Mr. and Mrs. Handabaka. In the farther corner on the same side is a small house-chapel and altar where evening service was often held for the servants, one of the sisters conducting; rarely a priest officiated, as at the blessing of the cross for the indians. At the opposite corner, between the parlour and the sitting room was the suite which I occupied; a large chamber with one window on the patio and doors communicating with the rooms adjoining and with a dressing room at the back, which had a window looking upon a garden, and another door opening on a rear portico. Upon a stand were a handsome wash-bowl and pitcher, but I looked in vain for a slop-jar. Presently I perceived the reason for its absence. The adobe walls are thick, the window sills are broad. This one was



Copyright, 1908, Annie S. Peck
Main patio, house in Yungay



Side patio of same house

1950

covered with zinc, the surface inclining toward the centre and to the outside. Under the window was a hole and pipe by which water poured upon the ledge ran out, falling into a little *acequia* or gutter where a stream of water of varying size was constantly flowing. This, then, served as slop-jar, and proved a great convenience in developing my films, as the water supply had only to be brought in and not carried away. A good many rolls were here brought to light.

In one corner of the large chamber was an old-fashioned high-post curtained bedstead, with beautiful warm blankets. These, made in elaborate patterns, with white and bright coloured wool, I afterwards learned had been dyed and woven in the house. The sheets had a very wide embroidered border to come down like a valance and there was a handsome spread. The pillows had coverings either wholly or in part lace, but these articles in themselves left something to be desired on the part of persons accustomed to real feather pillows. It seems rather queer that in houses or hotels where no expense was spared on other furnishings, the pillows in Peru and Bolivia should all be thin and hard, apparently made of — well, I don't know what. If of hen's feathers, they would have been lumpy, which they were not; they were just plain hard and smooth, not even stuffed with sawdust or there would have been a hollow.

The taking of a bath was a matter of ceremony. In the city of La Paz, the largest and best hotel had not contained a bath-tub of size larger than for the feet, so I hardly expected to find one in a private house in Yungay. However, I thought it no harm to inquire if they possessed such an article and was greatly pleased to have an affirmative response, with the further information that I could take a hot bath whenever I liked. "Bueno!" I rejoined; "this afternoon?" "Certainly," said my hostess, "in an hour's time." Not having seen any bath room, I wondered a little, but was not long in suspense. At the door of my chamber two servants appeared, bearing a great wooden bath-tub, in size and shape similar to ours, which they carried into my dress-

ing room. Later a maid arrived with two pails of hot water, soon after came two pails more, others again, both hot and cold, till there was plenty of water of the right temperature, nice and hot, with another pail of hot water on the floor in case I wished for more. Obviously a hot bath entails considerable labour, and though servants are numerous, one would hesitate to ask often, especially as it is evidently not a common practice on the part of the members of the household. This is true of South Americans in general, which is not strange in view of the general lack of facilities; but it may be said that cold bathing also, with towel or sponge, is an even rarer custom.

At the right hand corner of the patio is a wide opening into a rear courtyard of larger dimensions, along the left side of which a covered corridor leads to the dining room. From this a window looks out upon the garden which is directly back of the central patio and drawing room. The table is always decorated with roses and other flowers, familiar or strange, as in this climate at all seasons there are plenty of blossoms.

What we had to eat may be of interest. In the morning, as almost everywhere except in the United States and England, one is served with coffee (or tea) and rolls, either in bed or in the dining room as preferred. The ladies of the house used to take tea at their convenience in the dining room, but I enjoyed the coffee and rolls in my own chamber, in luxurious contrast to my strenuous life at other times. I wondered at the ladies drinking tea instead of their excellent coffee. They used to take afternoon tea as well, which custom I did not share, but they drank coffee after dinner and also at *almuerzo*, which I omitted. *Café au lait* was served in the morning, black coffee at dinner; at *almuerzo* whichever one liked.

The hour for the latter meal, I believe, was eleven, but it was rarely served before twelve and sometimes it was one. The first course was *caldo*, the broth of boiled meat with a piece of the meat, a potato, and perhaps yucca in the plate

also. The next course might be meat and rice, the third eggs in some form. I particularly liked their hard boiled eggs, served with a brown peanut sauce; the next course might be beefsteak with a green salad; the one before this might be vegetables only. One finished with tea, coffee, or a glass of milk, as desired. But in 1904 no one besides myself ever took raw milk as they call it; in 1906 and 1908 Señor Handabaka, an Austrian, used to keep me company. The milk was rich and good and I suffered no ill effects from drinking it twice a day; but the Peruvians and Bolivians generally seem to sympathise with the present craze for having all the milk cooked, considering raw milk dangerous.

Afternoon callers were treated with tea, coffee, a liqueur, or wine, according to who they were. Dinner was served generally between 6:30 and 7:30 P. M. The first course was a regular soup, usually with something in it like vermicelli, or *fideos*, of similar character, rice, or other things, well seasoned and good. Three substantial courses followed, more or less like those at noon, succeeded by a bit of preserved fruit, or jelly, or a sort of sweet cream pudding; but they are not strong on desserts in these countries. Pies are unknown and puddings in variety also. We had once or twice some very nice ice cream, but it is far less common than with us, although in places like Yungay it is easy to obtain ice from the glaciers above, an inexhaustible store.

A new kind of meat for me was guinea-pig, which I very much liked. The only trouble is that there is little meat except on the legs and not much on those. However, the animals are extremely prolific and it would seem that they might with profit be raised here for the market; they eat little, and food that is inexpensive, green stuff of almost any kind. I thought them nicer than chicken; rather like frogs' hind legs. We had chicken occasionally, but mostly beef, mutton, or lamb; never any roast meat as we have it. There was a variety of vegetables, peas, beans, various kind of potatoes, very good, but the sweet potatoes hardly equal to our best. They had lettuce, but not nice and white, to-

matoes very small, cauliflower rarely, spinach often in Lima but not in Yungay, a vegetable somewhat like squash, but no real squash or turnip, yucca, well enough but tasteless. On the whole the table was very good, rather too rich and hearty, and one was tempted to eat more than was best for him, as I think most of the natives do: altogether too much meat for persons who take so little exercise.

One day I was invited to peep into the oven and see the bread baking. It was somewhat after the style of our old brick ovens, but larger, of oval shape, constructed of adobe bricks with a stone floor. A fire of coal was made in the oven. When the stones were well heated, the coal was withdrawn and the bread in small loaves put in to bake. When I looked in, it was nearly done. A peon came with a wooden shovel to take some of it out and turn around other pieces which were browning too much on one side. The oven floor was six or eight feet in diameter. In the kitchen was a range where meat and other things were cooked in smaller quantities.

I took an especial interest in the coal, as my father had been in that business. It came from a mine a league or so distant which was owned by the family. At present there was no market for the coal, as the houses are never heated, and among the common people sticks suffice for cooking. When the railroad comes up the valley, this and other mines will be very valuable. The coal appeared to me to be a soft anthracite. It burned with a yellow flame with hardly any smoke. Some pieces that I brought home being afterwards analysed showed 7.9 per cent. volatile matter of which .82 per cent. was moisture, 82.26 per cent. fixed carbon and 9.84 per cent. ash. It was called a semi-anthracite coal, non-coking, and smokeless.

In the evening the living rooms are lighted by large kerosene lamps, those in the dining room swinging above the table; candles serve in the bed chambers. In Lima the hotels and some dwellings are illumined by electricity, which no doubt will soon be available in the Huailas Valley, investiga-

tion of the water power having already been made for this purpose. In many parts of Peru there is abundance of hydraulic power for the production of electricity. Although the quantity of water is not large on the west side of the mountains, the fall is great, which serves the purpose equally well.

The cost of living in Yungay is small. A large house may be rented at a ridiculously low figure, the exact sum I have forgotten. Food is extremely cheap; for example, eggs were six cents a dozen, oranges five cents; sixty granadillas could be bought for the same sum, and as many tunas or prickly pears. The granadillas I thought very good, though they could not be called filling, and would surely be shunned by persons who for fear of appendicitis refuse to swallow grape seeds, since they are nearly all seeds. Chirimoiyas, more expensive everywhere, are here three for five cents. I was never there in the right season for grapes or figs.

Everyone can afford to eat meat in Yungay, so most people eat too much; beef for boiling is five cents a pound and beefsteak nine. A sheep costs a dollar and the meat will keep eight days without ice. Meat is also sold dried as in Bolivia. A lamb is worth forty cents. Potatoes cost 75 cents a bushel; sweet potatoes, four pounds for five cents. A hen costs twenty cents, a chicken fifteen, a rooster ten, a turkey one dollar. The last are rare. Two guinea pigs may be bought for five cents.

Wages also are low. The cook received a dollar and half a month, other women servants fifty cents, the major domo two dollars; all had board and clothes as well, but these of the simplest kind. Also they received occasional presents. The Vinatéas counted fifteen servants, including two children, one a bright little girl of three. The sister in the next house had eleven servants. At their haciendas a much larger number of people was employed. One day I made an interesting visit to the storehouse, where I saw a great variety of food. There are fifteen kinds of dried potatoes, of which

three sorts are generally kept for the family and two for the servants, the latter by no means being provided with the same food as the former, except what happens to be left over. *Ají* is hot stuff something like pepper, only more so, with which many dishes are seasoned. Some were altogether too hot to be eaten by unsophisticated persons, though of others milder in character one could partake a little. At nearly every meal a dish thus seasoned was served. There were dried beans and peas of several varieties, quinoa, a sweet grain for purée, corn for hens, also white and brown corn for sweets; there were wheat, white potatoes, onions, and doubtless many other things. Fresh vegetables and fruit were bought daily in the market place, i. e., the plaza, or brought from a hacienda. In a cage were palomas, both ring doves and plain, others were flying about the patio.

As to dress and fashions, while it is true that at home every day the ladies did not take the trouble to dress elaborately, it was surprising to see what up-to-date costumes they wore when making ceremonious calls. Paris fashions seem to reach Lima as promptly as New York, and some of the Yungay ladies, receiving their gowns, wraps, and hats direct from Lima, were models of elegance as well as of courtesy.

At a later date I received from one of my friends there an account of a wedding for which the bride's gowns and some of the others came from Paris, while many were ordered for the occasion from Lima.

The life and homes of the indians who are the tillers of the soil, workers in the mines, the toilers generally, are in striking contrast to those of the pure Spanish-Americans, the rulers of state. Their huts of stone or adobe, with a thatched roof, often with a low door at which one must stoop, are interesting to look at, but seem by no means desirable to enter, much less to live in. The round dwellings have but a single room; rectangular adobe structures often contain more. With the family are hens, dogs, and guinea pigs. They have a patch of ground with beans, corn, po-

tatoes, and alfalfa, sometimes a cow and a few pigs. Their dishes are earthenware, with an iron pot and wooden spoon. They have no tables or chairs. The cooking is done with a fire of sticks outside the house. In their ragged and dirty clothing the indians frequently present a picturesque aspect; they look amiable enough, are usually polite and deferential, appearing contented in their ultra simple life. They do not suffer from a frigid climate; with enough to eat and drink and an occasional fiesta they seem to have no further ambition.

The Quichuas in Peru are of more prepossessing aspect than the Aymarás in the neighbourhood of La Paz, who are generally of a stern and forbidding countenance and less prone to give greeting to the stranger passing by. Yet doubtless the races have their leading characteristics in common.

The term indian applied to these people apparently misleads many in the United States, who, inferring that they are like North American indians, wonder at my courage in venturing alone among uncivilised folk. Some persons, no doubt, suppose that the greater part of South America is still inhabited by savages, and that one takes his life in his hand when venturing outside their large cities. I must confess that in the beginning I was not myself aware that I should be quite safe in attempting without masculine escort from my own country to explore certain regions of the Andes; but I now take pleasure in stating that so far as the natives were concerned, I believe that in my wanderings in South America I have always been safer than in the evening on the streets of our large cities, though I have never been molested anywhere. In the rural districts of Peru, conditions appear much as they were in the South before the war. Then a woman felt perfectly safe on a plantation, even if there was no white man within ten miles. With rare exceptions, it is now the same in the agricultural regions of Peru and Bolivia.

CHAPTER XVIII

TO NEW YORK AND RETURN IN 1906. A SILVER MINE, A SUGAR PLANTATION, THE HARBOR OF CHIMBOTE

ON bidding farewell to my new-found friends at Yungay, I rode down the beautiful valley to Caraz, while my baggage went direct to Cajabamba as it had come. Thence the day following, accompanied by the major domo of Señor Alba, who, having loaned me one of his horses for several weeks, now cordially proposed that Aurelio with saddle animals should escort me all the way to the coast, I again climbed over the Black Range to the home of the Brysons. From here, however, Aurelio returned to Caraz, as my Scotch friends would send me onward to San Jacinto.

To speak English once more was a relaxation, which made especially agreeable the two days with my genial hosts. I was greatly interested in visiting the mine, Colquipocro, 2,000 feet above, which the Italian engineer, Raimondi, speaks of as a veritable well of silver as its name implies, adding, "It needs only a moderate outlay of capital and good management to return fabulous riches." This was before the coming of Mr. Bryson, the proprietor for thirty years, who is called one of the wealthiest mine owners in Northern Peru. A fine bridle path leads up to the mine which is connected with the house by a private telephone wire two miles and a half long, the electrical plant in charge of the ladies. Though at an altitude of more than 14,000 feet, the climate is so mild that the temperature in the office is about 56° Far. all the year around. The protecting hills render the site of the mine less bleak and windy than that of the house below, which has a more exposed position near the head of the gorge. Of the dozen or more veins in the mining property, several are now worked, the Animas

lode having seven tunnels, one above another. Exploring one of these with Mrs. Bryson, I espied some fine ruby silver in the roof, several pieces of which were pried off into my hands. There was plenty of the same sort lying about, but I especially appreciated what I had seen taken out myself.

On account of the difficulty in transportation and the lack of a smelter near by, only rich selected ore was made use of. This being sent on burros to Samanco was shipped thence to Liverpool. Some of the ore ran as high as \$2,000 per ton, though the average was about \$200. Near by I saw a big dump with about 15,000 tons of poorer ore, averaging 80 oz. to the ton. Whatever the price of silver, such a mine is obviously of great value. Mr. Bryson had erected a five stamp mill with a Wilfeley table, which he expected to start working in a month; but when I was there in 1906 it was still unused. He said he was too lazy, he had given up mining and gone to dancing. The family was then living in Yungay. Mr. B——, a hale old gentleman of seventy, possessing a large competence, thought he might as well take life easily and enjoy himself.

In a gully in the midst of the mining property is a village of five or six hundred people, with a church and a cemetery. A school was soon to be installed. From eighty to one hundred and ten men and boys were employed at the mine, with wages from ten to fifty cents a day or a little more.

At the hacienda below, near the house, five hundred sheep were kept, eighty donkeys, twenty cows, and fourteen horses and mules. Potatoes, barley, and vegetables were raised. The family had no occasion to go to market, for aside from what was ordered in England or Lima everything was brought to their doors. The proprietors treated the indians in patriarchal fashion, settling their disputes and punishing them when they did wrong. If dealt with justly, they said that the indians bore no malice on account of punishment, and it was necessary to treat them like children. One punishment was by chain and bar, on which the

unruly were compelled to ride. Mrs. Bryson possessed a horse-whip which she knew how to use. One Christmas, when the men are generally drunk, there was a fight between one who belonged here and another from a neighbouring ranch. Mrs. B—— went out, and, wielding her whip vigorously, took her man by the collar, marched him off, and locked him up for the night, he going as meek as a lamb. The other, who began to be impertinent, was quelled with a few lashes. Once during an insurrection an army of indians encamped on the neighbouring hills. Their general sent presents to the Brysons with a message not to be alarmed, they should not be disturbed; although at some haciendas where indians had been cruelly treated murder was committed or the people compelled to flee.

The family had plenty of books, and received a large weekly mail with English and Peruvian magazines and papers. They used to go visiting to Caraz and Yungay for a month or two at a time, while at Christmas or to celebrate some one's birthday, they might entertain here for a fortnight a house party of twenty. With the numerous family (Mrs. Bryson was a second wife with five small children), the large household, and the occasional visits of passers-by, they had no time to be lonely and seemed to enjoy life as well as most people. I am greatly indebted to them as to the Vinatéas for repeated kindnesses and hospitality.

From Cajabamba descending to Moro, we went to Hornillos by the south cañon, a shorter and better road, by which we ought to have come, without passing Pamparomas. The night was spent at the Gadéas, who were most cordial in their greeting. In the morning I at last enjoyed a cup of their fine coffee, some of which I afterwards saw growing in their hacienda and received samples in three stages, the flowers, the green, and the ripe fruit. I expressed so much appreciation of the delicious beverage that the old gentleman urged upon me a package of several pounds, which after my return home was a pleasing remembrance of my journey, surpassing any coffee purchasable here.



Patio, Cajabamba



Indian houses near mine, Colquipocro

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In the afternoon I rode on to San Jacinto, where I gained some information in regard to the production of sugar, one hundred tons of which are annually exported from this estate. Sugar is the chief agricultural industry of the coast, and nowhere else in the world are there better facilities for its production. It is a great advantage that there is no particular season, that cane can be cut and sugar made all the year round; storms are unknown, the soil is excellent, and irrigation provides the water as needed. The crop is of the finest, four times as much to the acre as in Louisiana, three times that of the West Indies, and much larger than in Brazil, while with more careful methods it may still be augmented. Alcohol of the highest quality is also produced in Peru. The coast land is either level or gently sloping, well adapted to irrigation. Fertilisers are cheap, guano from the neighbouring islands being purchasable at the ports for fifty cents a ton. Some of the sugar estates have the best appliances in the world, while others, more backward, are improving in this particular. There is unfortunately a tendency for the small estates, as in other countries, to be swallowed up by the big ones, but in some districts there are small farmers who bring their cane to a central factory on terms mutually satisfactory.

The workmen at these haciendas are largely brought from the sierras by a contractor, who receives from 15 to 20 per cent. of their wages. Houses are provided, and rations to the extent of one pound of meat a day, a pound and a half of rice, salt, and coca. Wages are twenty-five cents a day, or the men are paid by piece work, which suits them better. The total production of sugar in Peru in 1910 is estimated at about 165,000 tons, of which probably eighty per cent. is exported. It is estimated that one hundred times as much could be produced if all the available land along the coast was irrigated for this purpose. At present, however, there is a lack both of labourers and capital, which for some time will delay the full development of the industry.

While my baggage went straight to Samanco, I rode

across the desert to Chimbote, the next port north, and about ten miles farther from San Jacinto. The following day I had a delightful ride to another sugar estate near the mouth of the Santa River, enjoying part of the way a beautiful canter on a hard beach where a splendid surf was rolling. On the second beach was my destination, a solitary but attractive dwelling such as might be found on our northern shore, with all necessary comforts, an ideal climate and location, a happy home for one inclined to solitude. The sugar plantation was farther back, the town of Santa also. The return ride under a tropical moon was a fitting conclusion to my journeyings in this land of wondrous charm.

Early next morning the weekly steamer was lying in Chimbote harbour. Regretfully I returned to Callao, whence two days later after another fumigation of baggage I sailed for Panama. There I found many changes; things were moving rapidly; but while a political revolution may be accomplished in an hour, a city or a tropical wilderness requires time for complete transformation.

In a far happier frame of mind than the year preceding I arrived in New York in November, with no apprehension of a recurrence of the *shingles*, in spite of the fact that my labours and hardships had greatly surpassed those of 1903. While, handicapped by inexperienced assistants, I had not gained the summit of any mountain, I had yet reached on Illampu an altitude, conservatively estimated, of at least 20,500 feet and made a record height of 18,000 or 19,000 feet on Huascarán. I had climbed where no mortal before had stood, and higher than any man or woman now residing in the United States. Having demonstrated that I was really competent to do what I had undertaken I had a renewal of hope that I might find such assistance as any man, competent or incompetent, would easily obtain, to enable me to continue the work that I had begun.

The sort of exploration which I had undertaken would seem of a far more practical nature than that of the polar regions. While every portion of the globe is undoubtedly

worthy of investigation, and is certain at some time to be explored, the inhabited regions of the earth, especially those of our own hemisphere, which, for their magnificent scenery invite travel, and for their mineral and agricultural riches invite commerce, should at once become better known to us. Mountain climbing for itself alone, to many, nay, to nearly all of our people, might not seem worth while; worse, it might appear folly: but as a means of drawing attention to a section of country that should be world famed for the splendour of its great mountains, no less for the mineral riches along their slopes, it seemed that my efforts might appeal in a practical way to practical men.

Three thousand dollars were needful to procure Swiss guides and thereby insure the success of the expedition: but alas, the road was no easier than before. 1905 passed, 1906 was going, when at last I called on *Harper's Magazine*. (I had tried them in vain several years before.) My first call was made on Monday, a contract was signed on Tuesday, and I sailed on Thursday, May 25, once more alone, as my entire funds amounted only to \$700, about half as much as in 1904; but having experienced Peruvian hospitality, I knew that after once landing in Samanco, little money would be required except for the actual expenses of the climb. I was by no means confident of completing the ascent without Swiss guides, the only people in the world who make a profession of mountaineering, but I *hoped*, with the same two leaders I had previously employed, and the mountain in better condition, to reach the top of the saddle, perchance the summit.

The voyage to Panama had an especial interest, for while the steamship *Colon* was packed with a not altogether agreeable set of passengers, some of the returning employees were able to give first hand information in regard to conditions on the Isthmus, which were then receiving a good deal of criticism from various quarters. These employees were by no means all gentlemen, but being American citizens, they were in their own estimation as good as anybody else, if not

a little better. The head-steward and the stewardess groaned over the change from earlier days, over the crowd, and over the ill manners of many of the passengers, who, they said, did not know how to conduct themselves decently; on this account and with the small number to assist, it was impossible, they declared, to keep the boat clean or to render proper service.

The crowd was so great that many passengers were obliged to eat at a second table. The food was as good as could be expected by employees who paid only \$20 for the trip, but seemed rather poor to passengers who had expended \$80 or \$100 for their tickets; yet among freeborn citizens no distinction could be made.

Arriving at Colon, Thursday, May 31, improvements were at once obvious, though there was still room for more. On the journey across the Isthmus I saw many changes and evidence of great activity. I was glad to escape with but one night at the Hotel Central at Panama. It was bad enough before, but this time my room on the top floor was supplied with three pools of water; one of these had come in the window, which had no protection but blinds, the other two through the roof. Luckily the bed was dry, but in the morning I found some of my clothing rather damp, though I thought I had placed it out of range. The \$3.50 a day formerly exacted seemed more than sufficient for such accommodations; but now the price, at least to Americans, had been increased to \$4.00. A gentleman who looked Spanish and spoke the language was, however, charged only half as much, which was all the accommodations were worth, but in those days we were helpless and obliged to submit to extortion. Not long for me, as the *Limarí* was at the dock, so that I could go on board on Friday, and happily we sailed Saturday.

The voyage south with genial Captain Collins for several reasons was especially agreeable. The table was better than usual, with really good roast-beef and steak, due in part to the introduction of cold storage, facilities for which in

earlier days had not been provided. Also I have observed that a careful captain generally provides a good steward. As the captain was fond of deck golf, I had daily opportunity for this form of exercise, pleasanter and more beneficial than a monotonous promenade. Some of our evenings were enlivened with the old-fashioned game of euchre, no bridge or whist players being in evidence.

On account of two days' delay at Paita, it was Wednesday evening, June 13, when we arrived at Callao, too late to go on shore. Thursday I repaired to Lima to wait for the boat north. It was annoying not to be able to land at Salaverry and take the *caletero* boat thence to Samanco, but at this time as in 1904 no one was allowed to go in or out of any of the northern ports of Peru except by way of Callao. Coming down, the Peruvians were afraid of Guayaquil, and going back, Guayaquil and Panama were afraid of Peru, hence many trials.

Leaving Callao, Tuesday, June 19, on the *Mapocho*, on my way for the second time to the Huailas Valley, instead of landing as before at Samanco, I went on to Chimbote in order to investigate more thoroughly a seaport destined, I believe, within a few years to become the second in importance in Peru, and ultimately one of the busiest harbours on the South Pacific coast. For such a consummation greater facilities are here afforded than in any other section of which I have heard. The unequalled combination of advantages includes first, a perfect harbour; second, a site suitable for a great city; third, a temperate and healthful climate; fourth, an adequate and easily available water supply; fifth, that it is the natural outlet of the most thickly settled portion of Peru, which is so because of its wonderful richness in both mineral and agricultural resources; and last and most important of all except the first, that there is an enormous supply of excellent coal conveniently situated within a distance of from fifty to one hundred miles.

On the arrival of the steamer at Chimbote, Thursday, June 21, I was met by my old acquaintance, Señor Victor

Pezet, United States consul, who escorted me to the little hotel at the port. The hospitality of Señor Pezet was unquestioned, but in the small house where he dwelt with his wife and seven children there was hardly space for guests to lodge.

The hotel, though an improvement on the one at Moro, was pretty poor; my room with a rough dirty floor contained a table, two chairs, a bed, a primitive washstand, and a superfluous comb. The dinner, served about six, was in keeping; a soup of noodles was the first and best portion, then followed rice and potatoes with ají, a third course of tough meat and cold beets, further, tea or coffee. In the evening I received a call from a Dane who spoke English fluently. He expressed the opinion, manifestly true, that Peru is no place for a poor man, that is, for an unskilled labourer, one sol or fifty cents a day being considered good wages. On haciendas, one-half or one-fourth as much is paid with a pound of meat and a pound of rice. As foreman or superintendent, one would naturally receive more. Specialists of various kinds are in demand and well paid. This man was eager but unable to get away; yet when I suggested his assisting me in my mountain climbing, although utterly inexperienced, he asked a larger sum than a Swiss guide would demand on his native heath, an absolutely prohibitory price.

On Friday, I enjoyed with the Pezets my two meals (breakfast at noon and dinner at night), both for the good company and the improvement on the hotel fare. Saturday, the Pezets going off on horseback to spend the day, I went by train to Tambo Real to see a large sugar plantation that I had heard much about, supposing that the English people there would, in that out-of-the-way place, be as glad to see an American cousin as others that I had met under similar conditions. I returned, however, on the next train, having seen nothing of the hacienda nor of the river valley, as I had hoped, since the railroad runs for some miles across



Señor Pezet, American Consul, and family, Chimbote



Yungay, Independence Day of Peru

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the desert before approaching the irrigated lands along the river.

Sunday was spent mostly with the Pezets getting additional information and taking photographs. It was interesting to observe on the parlour table a well known American fashion magazine to which the lady said she subscribed, although she spoke little English; probably she persuaded her husband to translate for her.

Ferrol Bay, the old name of Chimbote harbour, has an area of about thirty-six square miles with a length of eight miles along shore and a breadth of four miles and a half. Its excellence is due not alone to the fact that it is practically land-locked by several islands and by a long sandy isthmus, so low and flat as to be hardly visible, which separates this harbour from the bay of Samanco and terminates in what looks like another bold and rocky island. Of almost equal importance is the fact that when soundings were made, not a single rock was found in the whole harbour. Along the main shore there is a sandy beach affording excellent and safe bathing, and the usual wharf extends far out into the sea. With the completion of the railroad up the valley and the beginning of Chimbote's service as a coaling station, arrangements will doubtless be made for docking at one of the islands where there is great depth of water close to the shore. As the island is separated from the mainland by a channel only 200 yards wide, bridge connection could easily be made, so that coal and exports of every kind could be transported by rail directly to the docks, and the coal sent by chutes into the ships. The blocking of the north and narrowest entrance which is now unused would do no harm, as two others of greater and sufficient breadth remain; the south channel half a mile broad, the main one at the west a mile and a half.

This beautiful harbour, long neglected by the Spanish Americans, and still obscure and little known, in the last century attracted some attention from foreign capitalists and governments. The American, Henry Meiggs, after

taking up his residence in Peru, besides constructing the South Peruvian Railway and contracting for the Oroya, formed large plans for the development of the railway interests of Peru in other sections. One of these was for a railway from the harbour of Chimbote up the valley of the Santa River and the Huailas Valley to Huaraz, a distance of 167 miles. As yet there was no Chimbote, merely the beautiful harbour, a far better terminus for the railway than the poorer Bay of Santa a few miles north, which had hitherto been used by the steamboats as a port of call for the town of Santa and the valley above. To Henry Meiggs, the superior excellence of Ferrol Bay being obvious, the absence of a town on the desert shore was of no consequence. A town could be built. The harbour was the main thing. Perhaps if he had owned land at Santa he might have said, in the manner of some Californians later, that a harbour could be built. As it was, he was satisfied to take the harbour that was ready made and build the town. In 1871 he laid this out according to Western American ideas in rectangular fashion with broad avenues suitable for the great city which he believed this would become. For some years Chimbote was a Peruvian port of the first class, but later it dropped back into the second class, a port of call for the *caletero* boats, but not for the through steamers to Panama. The reason will soon appear.

After a little town had been established the construction of the railroad was pushed forward. To reach the interior from this point, it was not necessary, as on the Oroya and Southern railroads to climb, by means of expensive tunnels, curves, and bridges to a height of over 14,000 or 15,000 feet. There was a reasonable grade up the valley, an altitude of about 10,000 feet to be reached in 167 miles instead of 15,665 feet in less than 100 miles. The only difficulty was in the narrow gorge where the Santa River has cut its way through the Black Range to the coast. The gorge is so narrow and has so nearly perpendicular walls as to leave no space even for a bridle path along the river bank, much

less a carriage road; which is the reason why people have climbed 14,000 feet or more up over the Black Range, and 6,000 or 8,000 feet down again to reach the Huailas Valley instead of coming up along the river. I was told that this cañon was recently passed for the first time by Alexander Strachan, Frank Scott, and Emiliano Buzzi, but I have also heard that some American engineers made the passage in the 70's.

The task of cutting through the gorge was much less than the series of difficulties presented in the Rimac Valley. Eighty miles of road bed had been constructed with four bridges and seven tunnels, and sixty miles of rails were laid. Those were boom times in Peru, when the rich nitrate lands of Tarapacá belonged to the country and there was abundant wealth.

Then in 1879 came the war with Chile, Peru herself having no quarrel, but espousing the cause of her ally Bolivia. As the Peruvians were totally unprepared the Chilians, by virtue of having a superior fleet, were able with little difficulty to gain possession of the seaports, and thence to go inland as they desired, concentrating their forces, now in one place and now in another, which the Peruvians were unable to do, as there is no means of land transportation along the irregular mountainous coast. The Chilians followed the manner of mediæval rather than of modern warfare, not only seizing and carrying off such property as they were able, but ruthlessly destroying much that they were unable to move. Having captured Chimbote, they took away the locomotives and great quantities of supplies, including the entire outfit of the railroad repair shops, then the best equipped on the west coast. The bridges and other things immovable they destroyed. After the close of the war and the loss of her rich nitrate territory, Peru was bankrupt. In return for assuming Peru's debt, her railways, guano deposits, and other concessions were handed over to the Peruvian Corporation, an English company with immense wealth and influence in the country.

As the Corporation did nothing at Chimbote in the way of development, merely operating the railroad as far as Tablones,¹ about thirty miles up the valley, after fifteen years its rights lapsed. A concession was subsequently granted to an Englishman, Mr. Louis Schafer, who, in 1906, was in England organizing a syndicate to build a railroad up the valley as far as Caraz, to be completed within two years. In the following November, 1906, work was begun, but unfortunately not finished by the time designated; the concession, however, was renewed in 1908.

The natural resources of town and valley are extraordinary. With water brought from the Santa River the desert for miles around could be brought under cultivation. The soil is of the richest quality, the sand, full of phosphates, being from three inches to one foot in depth. The region here is not cut up into narrow cañons as in most sections, but there is plenty of level land diversified at intervals with hills rising like islands. The town has a population of 700 only, though with room for a million and ample means for their support. It is an excellent place for fishermen, or will be as soon as the railroad up the valley is completed; for the large population in the interior will enjoy sea food when it can be quickly transported thither. Sixty varieties of fish flourish here, many of which are extremely good. One could not ask better. They include plenty of crabs and lobsters, but no oysters or clams. There are nice coves where the former could be planted, but whether or not they would thrive in these waters I am unable to state.

Food is very cheap, beef or mutton from ten to fifteen cents a pound. Water costs money, as none grows here. Brought from the Santa River, the price is one cent a gallon

¹ Recent advices are to the effect that the railroad which should by now have been completed up the Huailas Valley to Recuay is finished only to kilometer 105, not entering the cañon or reaching the coalbeds beyond, that the work done is unsatisfactory, and that the concession is likely to be cancelled.

at the head of the pier. When the ancient ditches of Inca days are repaired and water is used for irrigation purposes, it may be cheaper. The exports of Chimbote consist of sugar, alcohol, coca leaves, coffee, and hides, with gold, silver, copper, and lead. The most important product of the region does not appear in the list on account of the railroad running only half way to the location thereof.

The development of the coal fields which begin 67 miles up the valley is of the highest importance for the economic progress of Peru. Two thousand claims have already been taken up within a distance of ten miles along the river, and with the opening of the railroad to this point a wonderful impetus will be given to enterprises of many sorts. That coal should be brought at a great price thousands of miles from California, when here, 70 miles from an excellent harbour, are millions of tons of the finest quality, seems a very shortsighted policy, as is now fully realised. The coal is of all varieties from fine anthracite to ordinary bituminous. Beyond the coal district, which is reached just beyond the gorge, is the region of gold, silver, lead, and copper, tin being found also. Coal, however, is not confined to a small section, but appears in seams here and there all the way up the Huailas Valley in the mountains of both the Black and White Cordillera. Were I a young man with \$1,000 to start, I can conceive of no more favourable place to go and make my fortune than Chimbote or somewhere up this wonderful valley.

CHAPTER XIX

OVER TO YUNGAY. THIRD ATTEMPT ON HUASCARAN

TELEGRAMS to San Jacinto and to Mr. Bryson announcing my arrival in Peru having brought prompt and cordial replies, Sunday, according to previous advices, two men from the sugar plantation, with horses and mules, arrived at Chimbote. That the heat of midday on the desert might be avoided they were bidden to be at the hotel at five o'clock Monday morning. I awoke at 5:40, but no men had appeared. After making everything ready, I took my coffee and paid my bill, which was sufficiently reasonable, my room forty cents a night, coffee with bread five cents, breakfast and dinner each twenty-five cents, with no charge when I was not there. The arrival of the men two hours late delayed our departure until eight o'clock. As usual near the coast the morning was cloudy and at first pleasant for riding, while towards the middle of the day, farther from the sea, the sun was rather too warm. With no expectation that the journey would be so protracted, though the distance was thirty miles, I had declined to pause for luncheon, eating only a little chocolate at noon. Consequently on reaching San Jacinto about four, I was exhausted from lack of food more than from fatigue, and was hardly able to stand from stiffness and exhaustion. The English bookkeeper, Mr. Allen, kindly coming to my aid, insisted upon my taking a little clear aguardiente, and I was soon myself again, though still rather tired. It had seemed a long ride to begin with after an interval of a year and a half.

While I regretted the absence of my former hosts, the agreeable Idiaques, I found the new administrador, Señor Delgado, also polite and hospitable. I enjoyed the good dinner of many courses, retiring before nine to a room in

the adjoining L. Tuesday forenoon a man with horses arrived from Cajabamba and about half-past one we set out for Moro, where he had remained Monday night. Much against my will, my baggage was left behind, as no mules had been sent down. Orders had been given by Mr. Bryson for a man who had gone with burros to Samanco to stop at San Jacinto for my baggage on his return; but in South America it is always dangerous to be separated from one's luggage. It may appear again in a week, a month, or never.

Riding the ten miles to Moro and out to the hacienda of Señor Gadéa, I found, to my regret, that the house was occupied only by the family of the married daughter, Señora Mariátigui, the old people now living in town. However, the usual cordial welcome was not lacking and in the evening I received a call from the mother and sister of Señora M., the old gentleman, on account of rheumatism, fearing to venture out.

Although I planned to set out at six in the morning, it was seven before I could get my coffee and depart, after giving many charges to Señor M—— to look after my baggage at San Jacinto and send it along as promptly as possible. On the way to town we met the old gentleman coming to call, and nothing would do but I must stop at his house a few moments. Then we went on through a desert country, presently turning to the river valley, again arriving about ten o'clock at the breakfast-place, Hornillos. From here we proceeded, not as before by way of Pamparomas, but as I had returned, crossing the stream away down at the bottom of a deep gully. After coming up on a ridge on the other side, a sort of hog-back between two other cañons, we rode for some time almost south, then turned to the left on the farther side of the cañon, at the upper end of which Cajabamba is situated. This route was shorter than the other, but without further halt it seemed interminable. The first part of the ride was pleasanter than in 1904, as I could admire the scenery without being fatigued by the continual

chatter of my companions; yet in spite of this advantage, the latter part of the way I was too tired to enjoy. On this side of the cañon were many projecting buttresses. After climbing a long distance in zigzags, we rounded a corner. Instead, now, of going straight up the cañon, which did not look long, and which had on the other side a nearly straight and very steep wall, we were obliged to turn in to a great gouge on the right, then come out again to another corner, travelling three times as far as a straight line from the end of one buttress to the next. I knew that farther up on this side there was a village, and kept expecting when I rounded the next corner to be able to see it. But there were *five* of these exasperating hollows, I counted them in 1908, and it was nearly dark, when we came at length to the village, still a long way from Cajabamba.

The scenery of the cañon, especially in going up, is very fine. The outlines of the wall opposite, separating this cañon from that of Pamparomas are worthy of admiration, while the frowning black cliffs of the Cordillera Negra above are of a gloomy grandeur of which I can never tire. Down below, the rushing stream is fringed with bushes and farther up the cañon with trees. Besides the rare green patches of cultivated fields near the village and on the other wall, there is a struggle for verdure on the hillsides, a little brown grass, a few wild flowers and bushes, especially large ones of heliotrope, here and there along the path.

The animals were slow travellers, mine having to be beaten continually, an exercise more fatiguing to me, apparently, than objectionable or stimulating to the mule. As the sun sank lower I grew colder and colder. It was almost dark when, having passed the village, we descended to the bottom of the cañon by a path so steep that for a bit I preferred to walk. After crossing the stream I expected soon to arrive, but no! A big black mountain, which seemed at the same distance long to bar the way, I knew must first be passed. I felt altogether done up and relieved my feelings by reiterating to the attendant that the way had no end, that I

didn't believe that there was any house anywhere and we should never arrive, but just go on forever. I was cheered by seeing a light, but the first was a mile below my destination. At length we were climbing the head of the cañon, and I rejoiced indeed to see the right lights and to hear the barking of the dogs. I could hardly believe, when we entered the patio, that it was not long after six. In fact, I observed on other occasions that their clocks seemed to be at least half an hour out of the way. A cordial reception was followed by a good dinner and evening chat, as I was too tired to go early to bed; but once there I did not get up until four the next afternoon, in time for dinner at five.

Day after day passed while I waited for my baggage. A brief delay in these comfortable quarters was not objectionable, as it was of great advantage to become accustomed to this altitude of 12,000 feet before making my climb. I improved the time by making another visit to the mine Colquipocro, where I entered other tunnels and took more photographs. One day I ascended the part of the Black Range facing the house, a slope topped by a grim wall which from first sight had enticed me upwards. Though I planned to make an early start, it was after luncheon, about one o'clock, when I finally set out. I walked on and on, with practically no halts, up a steep grassy slope, making really good progress for the altitude, an occasional backward glance at the prospect affording a momentary pause for breath. When, after two hours, the black rock wall drew near, I found on the right of a perpendicular cliff in front, some excellent rock climbing which in my knickerbockers was indeed a pleasure. In ordinary skirts I could never have taken the walk at all, much less enjoyed it. Discovering farther back a little higher peak, I climbed on until I reached a lofty point several thousand feet above the house, where I had a fine view, east, west, and south; at the north the ridge attained to greater elevation still. For some time I had been above the pass,

through which I could look southeast across the Huailas Valley to the majestic White Cordillera and greet my old friend Huascarán, a giant among lesser snow-clad beauties. The outlook was indeed magnificent; much more varied and inspiring than that on which at last I gazed from my long sought, greater, and more perilous height.

I could not tarry as I wished, for the sun was getting low. It was already after four. Once off the rocks I could go down much faster than I had come up, but it was a long way. Should I return by the same route? That would be discreet, for though there were two difficult bits there was nothing dangerous to descend. But I had seen on the way thither, at the left, also, a passage, which would afford greater variety in descending, with a better view of the sunset and of interesting gorges toward the sea; so I yielded to the wicked temptation. For a few minutes all was well. I skipped and jumped with great alacrity. Then came a ten foot perpendicular wall. It would have been wise at this point to return and take the other route, but we never like to do that. After searching in all directions, I discovered a lower wall which I concluded to negotiate. Sitting down on the edge, I dropped off a few feet and proceeded. A shaggy dog belonging to the house which had kept me company, a dog the size of a large collie or setter, here stood on the edge and howled. I called to him to follow but he declined, until he finally discovered a place more to his liking. Presently I was again halted. A narrow gully here seemed impracticable. After several minutes' wandering, finding in every direction downward perpendicular walls 15 or 20 feet high, I returned to the gully with the decision that I must make it. First there was a six foot drop, then a slippery descent between two sloping rocks where I had to slide, at the end get around a tree and drop off five feet more from an edge where it was impossible to sit and I must therefore jump. Without trouble I came down sprawling on the sloping grassy sward, thankful then to find that I was on the long downward slope below the rocks.

The angle here I did not estimate, but it was so great that I did not venture for a long distance to go down straight on the slippery grass, taking instead a diagonal or curve. At the top of the gully doggie had howled again. After I reached the grass and started onward he ran around to the top of a higher ledge and howled more. I had no time or strength to go to his assistance and with a few calls and whistles left him to find his own way, which he ultimately did, rejoining me a quarter of an hour later. In the cool evening air I went swiftly down, till at the top of a bluff not far above the house, I was met by a boy with a saddle horse, and finished with a short ride.

I was delighted with my little expedition, which in itself I had thoroughly enjoyed, especially because I had not experienced the slightest difficulty from the altitude, although ascending two or three times as fast as a few days before, when a short walk had caused, momentarily, a slight ringing in the ears. It is my opinion that fewer persons would suffer from *soroche* if they exercised more judgment, taking care to diminish the rate of speed with the altitude, especially until accustomed to the conditions. This of course is not a universal panacea or preventive, even in the case of perfectly sound constitutions, as my guide, Rudolf, of my later expedition is an evidence.

On this little jaunt, I had the misfortune to lose two fountain pens in a leather case which had been pinned to my flannel blouse. Thinking that it might have dropped off when I mounted the horse, I offered the boy who had met me a sol, fifty cents, if he would find it. This was a large sum for him, doubtless a week's wages or more, and he willingly sought next day, returning, to my great joy, with the one of the pens which I especially valued as a keepsake from a dear friend. I resolved next time I went mountain climbing to leave this pen at home; luckily so, for in Peru in 1908 I lost another.

Ten days I waited at Cajabamba for my baggage. The place was now connected with Caráz by telephone, but much

of the time this was out of order. By it, however, Mr. Bryson sent urgent telegrams, and, by the weekly post and messengers, letters to the gentleman who was to look after the matter and simply neglected it. Such a man is unjustly regarded by many as the typical Latin American, all politeness and protestations, and that, the end of it; but fortunately in my experience it was not so, save in this single instance.

At last a man appeared who reported that he had passed the burros with my baggage not far below and it would arrive the following morning. I prepared at once to leave and though the burros had not yet appeared, Sunday, July 8, I set out after breakfast, with the escort of a young cholo, for Yungay, Mr. Bryson faithfully promising to send along the baggage immediately. The way over the pass and down the other side was the same as to Caraz until within perhaps 2,000 feet of the floor of the valley, when we turned south, down past the village of Pueblo Libre. After crossing a cañon there we rode for several miles along a narrow path, still above the floor of the Huailas Valley, often with an unpleasant precipice below and with occasional overhanging rocks above, the path so rough and so narrow that when in the darkness we met a traveller it was quite alarming. I rejoiced when we safely reached the floor of the valley, again when an hour later I rode once more into the patio of the friendly Vinatéas, who had been looking for me several days, and gave me a warm greeting. The sister, Julia Maria, now the wife of Señor Francisco Handabaka whom I had met there in 1904, was living with her husband in her old home.

After a good night's rest in my accustomed chamber, I set about preparations for my big climb. While still above at Colquipocro, as the place is more frequently called, though this really is the name of the mine and Cajabamba that of the house and hacienda, I had learned that a gentleman, E——, from Carhuaz, the next town up the valley from Yungay, had telegraphed that he desired to join me in the as-

cent. "True," said my friends, "he is *loco*," which the dictionary interprets as mad or crack-brained, "but he is intelligent, gentlemanly, energetic, and courageous, the best companion you could possibly have." Perhaps they thought, as some of my friends at home had declared, that I was *loco* too, and he was therefore a suitable escort. I did not altogether relish the idea of undertaking such an expedition with a man who had once been violently insane, and was now considered *loco*, we might say queer. Perhaps he would take some wild notion above that would endanger all our lives. Yet the judgment of my friends, the Brysons, influenced me to telegraph him and talk over the matter, though I found later that some of the towns-people, including the Sub-prefect Cisneros, considered this course unwise.

At the outset I made inquiries about my former companions; but alas! the gallant little Osorio who had cut steps among the crevasses, and the stalwart Adrian who carefully held the rope during such operations had both gone to the Islands to work; another good man was ill: however, Señor Jaramillo, who had previously supplied the porters, assured me that he could easily find others who would serve me as well, a statement which it seemed unreasonable to doubt, though I greatly regretted the absence of my former tried assistants.

Additional alpen-stocks, ice axes, and climbing irons were ordered and other preparations were made; as straps could not be purchased, strips of raw-hide were procured to fasten the climbing irons, also skins for a sixth man who had no shoes; five pairs I had brought for my porters from New York since no heavy shoes could be procured in the place. Dynamite cloth I cut into strips for leggings. I purchased two pounds of coca for myself and companions, having on previous occasions found this an invaluable stimulant at great altitudes. Señorita Vinatúa furnished a good supply of pease meal and toasted maize. I had tea, sugar, grape nuts, and cocoa. One apparently good man named

Pablo was selected and more were to follow. Though I hoped to set out on Friday, when the day came only four men had been procured and other things were not ready.

Nothing had been heard from E——. It seemed that possibly some gentleman might be better able than I to manage the indians, but no one in Yungay appeared eager to go or really competent. I now planned my departure for Tuesday, but a fifth indian failed to appear. Everything was *mañana*. Monday evening, while we were at dinner, the long looked-for E—— arrived from Carhuaz. He had been away from town at his hacienda, and the telegrams had not been forwarded; the moment they were received, he set out post haste, and was eager for the climb on the morrow.

After dinner we went over to the Brysons', the family now having a home in Yungay as well as up on the mountain. During all of my stay the Señorita Inés was of great service as interpreter, for though I could manage fairly well, it took me much longer to make myself understood than to have her do it for me. At first, I hesitated, as there was a gleam in E——'s eye that I did not like; but on further conversation he seemed so intelligent and enthusiastic, that with the encouragement of the Brysons and Vinatéas I concluded to take the risk. We agreed to set out on Wednesday when everything would be in readiness. Although Pablo, who was more prepossessing and intelligent looking than the other indians, had declared that he would go with me even to the death, I thought it might be wise, to avert any possible superstitious prejudice to have a cross constructed as before. This being done, on the morning of our departure, the priest of Yungay in the house-chapel blessed the cross in a little service attended by the indians.

There was so much to carry that the burdens were large and heavy, but Pablo portioned them out with authority until little remained for him. Accordingly he suggested taking one of the two canteens of alcohol, each holding about three quarts; for as the oil stove had before been

rather unsatisfactory, I had prepared this time to burn alcohol. Supposing that we on horseback would overtake the men in a few minutes, I consented to his proposal, a hasty bit of folly on my part, since the indians have a weakness for alcohol and cannot be trusted with it out of sight, as I had discovered after my return from my previous expedition. It was nearly four o'clock when E—— and I set out on horseback for the mine, Matarao, on the west side of the mountain, whither I had gone on my second expedition in 1904. Too late we discovered that the indians had taken another road. I began to fear, not only for the alcohol, but for my expensive mercurial barometer which also Pablo was carrying. As nothing could be done now we hastened onward to the mine arriving at dusk; but no indians! We awaited them eagerly, with the lapse of time becoming more and more convinced that they had fallen into drunkenness by the way, till at ten o'clock, with guide and lantern, E—— went in search of them, returning at midnight after a vain quest.

Though I was sufficiently tired, what with the excitement and fleas as well, there was no sleep for me that night. At five in the morning the energetic E—— was up again and off on horseback for Yungay, both to search for the indians and to purchase more alcohol which we felt sure would be needed. But lo! at eight the indians turned up safe and sound, alcohol and barometer intact, explaining their non-appearance the night before by saying that it was impossible for the burros to which they had transferred the baggage to proceed after dark. This was a mere excuse for their spending the night at one of their houses part way, as they were bringing the baggage themselves when they arrived in the morning and had had no money for burros. So much worry and trouble for nothing, through their thoughtless delay, which caused the loss of a whole day's time, as E—— did not return until afternoon!

A man who was employed at the mine, having expressed a desire to accompany us, E—— urged that he be taken at

double pay as a substitute for one of the indians. There seemed to be no advantage in this, but to please E——, who was going without fee as a gentleman, I engaged X——, with the proviso that he should carry as much as the indians.

On Friday, July 20, two weeks later than I had hoped, we began our climb towards the snow, this time on foot all the way. At the upper end of the knife edge, X—— urged a different route, which he maintained was better, but which proved more difficult than the one previously followed. After our noonday halt in the little hollow between this ridge and the mountain side, we again plodded upward. Before luncheon, burdened by my camera, I had lagged in the rear, the small weight of four pounds greatly hindering my progress. Afterwards, by the offer of twenty-five cents a day, having induced one of the indians to carry it, I went gaily upward as well as the best of them. Now it was E—— who lagged behind. Later in the day, while toiling up the stony slope, we saw above near the snow a herd of animals which some of the men called *venado*, others *guamaco*. These, after watching us a few moments from a distance, scampered away.

About five we approached the snow, considerably north of our camp in 1904, yet still too far south. During my stay in Yungay, I had taken another walk up on the hills back of the town when I had perceived, as expected, that the great glacier on this face of the mountain was in vastly better condition than before. I had decided not to make our first camp so far to the south as in 1904, even though the rocks were higher in that quarter; but at a point almost directly below the saddle, where the glacier now appeared least crevassed and we could take a fairly direct route upward. The place which I had selected for our tents was on the other side of a deep gully at the north, but at this hour it seemed wise to yield to the indians' urging that we should camp here.

Now began my trials. No one could or would do anything unless told, and hardly then. If one worked, all the

rest looked on. I sent one man down to meet E—— to help him with his burden, the barometer and a can of alcohol. I dispatched some for water, others to collect fire wood. There were no trees or bushes near, but at a little distance dry dead brush was found which served the purpose. I instructed and assisted the men in pitching the tents, showed them how to place the iron stakes and the poles, get out the food and arrange the bedding, and I saw to the boiling of water for soup and tea. Of the two tents a nice little one, four feet wide and seven long, just big enough to contain my sleeping bag, was for myself alone. The other devoted to the men was larger than the one employed on the ice before. I had thought the little tent for myself a fine scheme but it did not so prove.

After our meal I crept into it and put on additional clothing. It seemed not very cold and there was no wind; yet somehow with all my clothing and the blankets of the sleeping bag I was not warm and had no sleep. The alarm had been set for five. Long before, E—— called out that it was four and with much conversation, the tents being close together, prevented what might have been a nap. At dawn I called to the men to get up. In time they procured water, made coca tea and soup, and at last packed up for a start. In crossing the aforementioned gully, wherever to each one it seemed fitting, I went to a less hazardous place below. E—— chose one higher up where there was a smooth sloping rock. From a distance I saw him slide down 15 or 20 feet. My alarm was more for the barometer which he was carrying than for him, but later this proved not to have suffered.

At last in the proper place, at the edge of the snow, four pairs of climbing irons were adjusted; the shoes of the others were well nailed. The cloth puttees were arranged. It was eleven o'clock when we entered upon the ice; a nice hour of the day to begin a climb. As I had previously planned, we take a northeasterly direction where the ice is comparatively smooth. E—— at his own desire

goes ahead, X—— second, I third, and Pablo fourth. The other three follow on a second rope. The frequent halts of the men at every convenient place to rest their packs greatly interfere with our otherwise fair progress.

About one we had a longer halt with a luncheon of canned beef, parched maize, and chocolate. I had explained to the men the use of rope, and of ice axe and alpen-stock; some had one and some the other. I continually exhort them to hold the rope tight (they are inclined to let it drag on the ground), and do this myself so effectually that X. declares he will no longer go second. Pablo declines the honour, so I propose going in advance. X—— is now second, and E—— third. As I had lent E—— my climbing irons, and as my shoes were not very well nailed, I was less secure, but went well for a time. In one place ascending a fairly steep slope, the snow was so soft that we sank in about a foot. Before reaching the top of this hillock there was open rebellion. Pablo, so valiant in Yungay, untied the rope and halted with the entire section in the rear. Thereupon E—— came nobly to the rescue and exhorted them strongly in Quichua until they were induced to proceed. No doubt it was hard work, but that must be expected in mountain climbing. Soon they wish to halt for the night, but I refuse.

Presently in crossing a narrow gully of hard grey ice, my foot slipped and after falling I began to slide. I at once brought down the head of my ice axe which held after I had slid about fifteen feet, at the same time that the rope became taut. X—— held the rope tight, thought it cut his hands enough to draw a little blood. After a moment's pause the men, despite my protestations to the contrary, tried to haul me up, the rope around my waist nearly cutting me in two, but producing no other perceptible result. At length I induced them to desist from their efforts until I should explain what must be done. I was in no danger. The gully gave into a nasty looking hollow fifty feet below, where there might be a crevasse, but I was all right where I was. The difficulty was in getting up. Just here



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Mt. Huascarán from alt. of 10,000 feet



Copyright, 1908, Annie S. Peck
Indian porters in ascent of Huascarán

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the ice was smooth, at an angle of perhaps 35 degrees; but five feet below, a little ridge across the gully would give a footing. I persuaded the men carefully to loosen the rope and let me slide down to this point. Then I was able to get up, climb out of the gully upon the snow, and walk back to the others. Though I made as light of this incident as possible, it probably alarmed the indians. Their protestations of fatigue and of the impossibility of going farther were renewed. I succeeded in getting them onward only by the assurance that we would halt at the first suitable camping place. We halted, indeed, at an unsuitable one, where the snow sloped more than was agreeable.

After the tents were pitched, as it was still early, not long after four, I thought we might put in the soup a little rice which E—— had insisted on bringing. I contributed also some pemmican. We had the best alcohol stove that could be procured in New York, so the outfitter declared, but that water would not boil. On another stove we made tea, but alas for the soup! after two hours the rice was still raw and for me a few spoonfuls of soup sufficed.

At home I habitually keep very late hours, but when mountain climbing I am as glad as the rest to turn in as soon as possible after dark. Supper over, I betook myself to my little tent a few yards from the other. At the door where the pole stood, the tent was five feet high, the canvas roof sloping down to the other end. It was therefore impossible to stand inside or to move about. I must sit near the door on the sleeping bag, which occupied the entire floor except a few inches at the sides, and rearrange my apparel as best I could. In the middle of the day the sun was warm, but at night the weather was cold; here on the great glacier decidedly colder than at the edge of the ice. I was already wearing three suits of woollen under-wear, (one of which had been added the night before), two pairs of stockings, and vicuña fur socks; the latter being damp I exchanged for another pair of heavy stockings.

To sit in cramped quarters with bundles and bags by

my side, take off high laced boots, change stockings, get into eskimo trousers, pull out and make use of my toilet articles, cold cream, Pond's Extract, Japanese stoves, comb and braid my hair, when half dead with fatigue and stiff with the cold,—well, it was the hardest kind of labour. Every few minutes I was obliged to rest from exhaustion. I could not do half that I wished. In vain I tried to sleep. Inside my bag I was still cold, especially my nose. A vicuña fur glove at length served as protection. I had additional clothing, but to get out of my sleeping bag and put it on was too great a task.

With the dawn I blew my whistle for rising; yet again: I shouted, to no purpose. When I was dressed, which meant getting out of my bag, putting on my boots, and combing my hair (no washing up here if one values his skin, and of course there was nothing but snow to wash with), I went over to the other tent where all was still. I vigorously exhorted them to rise and be off, but lo! the indians refused to stir. They declared that the snow came up through the floor of the tent and down through the roof; the inner walls naturally being covered with frost from their breath, a phenomenon which even the gentlemen did not understand, never having witnessed it before. The indians asserted that they had suffered with the cold and that they would not remain another night on the ice. This was a mere pretext, for other men with less clothing have made no complaint. Each man was wearing two pairs of heavy woollen stockings, a set of woollen under-wear, and a blue outer shirt, which I had brought from New York, in addition to his other clothing and ponchos. They would have thought nothing of being out all night near the snow, barefoot, with no more than their own apparel. As E—— informed me later, it was not the cold that they feared. During the night he had overheard them discussing the matter in Quichua, saying, "What would money profit them if they were changed into stone?" as they believed would happen if they went higher. It was in vain that I reminded them of their

contract to go to the top of the saddle for ten soles each, and offered them double, even triple if they would do so.

Nothing remained but for the rest of us to go on as far as we could, if possible to the big rock at the foot of the north peak, coming back in time to return to the snow line before dark. E——, however, was ill. Having eaten the half-cooked rice he was suffering from an attack of colic. Nevertheless, he said he could and would go; X—— also. After a hasty meal, E—— took his flags and the hypsometer, but X—— refused to carry my camera or to put on the rope. I told him that in that case he could not go at all when he presently yielded. Our progress was slow, the way growing steeper and on account of crevasses more difficult.

Once, when all were advancing, E—— in crossing a gully slipped, and slid rapidly down as far as the rope permitted, dropping his ice axe by the way, instead of using it to stop himself. As I was second, a good deal depended on me. Luckily I now had on climbing irons and was holding the rope tight. Also the slope was less steep than where I had slipped the day before. When the pull came, much to my delight, it was not so strong as I expected and without difficulty I retained my position and stopped his downward career. E—— readily regained his feet, fortunately also his ice axe, and we were about to continue on our way when X—— again refused to proceed if tied with the rope, or to carry the camera. I called him a coward, and everything I could think of in Spanish, to no avail. He did not propose to be killed if we were, he said; he would hold the rope in his hand. "Yes, and drop it if we both slipped," I rejoined. "No indeed! It must be all or none."

I took the camera myself, coiled up the extra rope, and went on alone with E——. Presently I perceived X—— following. He overtook us, half apologised for his conduct, said he would take the camera and put on the rope, but what would I give him? I considered the twenty soles previously promised far more than he deserved, but I at length agreed

to give thirty if we reached the big rock. It looked near, but with the necessary windings on account of crevasses and other delays, when half past one arrived it might require an hour longer, perhaps more, to attain the spot.

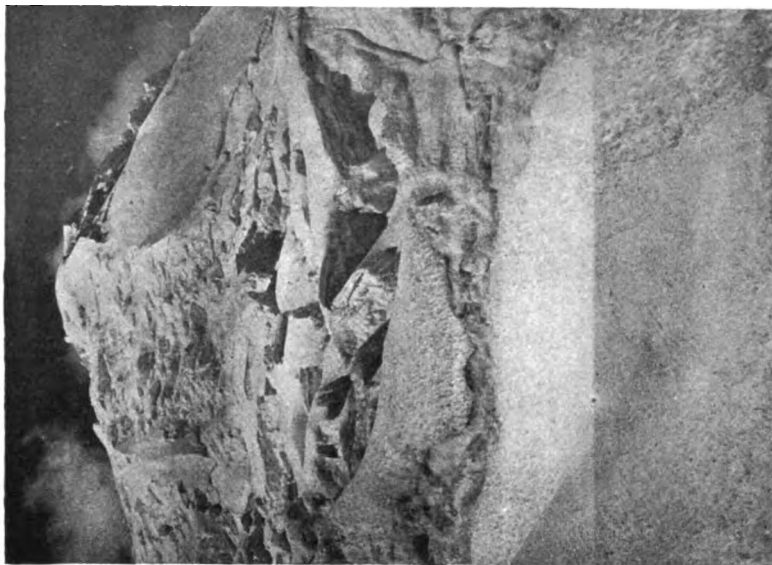
Fearing that if we had not returned by three, the indians would depart leaving the tents, etc. on the glacier, I reluctantly gave the word to halt. Before we retraced our steps I boiled my thermometer, temperature $83^{\circ}.92$ Centigrade, took some photographs, and we had a hasty luncheon. E—— unfurled both of his flags, one the Peruvian, the other a large piece of plain black cloth, which, in contrast to the snow, he hoped might be more apparent to the people below.

The descent was easy. An hour brought us back to camp. The indians who were on the watch, seeing us in the distance, in great haste began packing. This was the first and only time that I have seen the natives hurry in South America. Instead of the usual hour, fifteen minutes sufficed to make everything ready. Meanwhile X—— and E——, without burdens or rope, had set off for the mine, since E—— maintained that he must at once procure medicine in Yungay.

Leaving the cross on the site of our camp, with all on the same rope I led the four indians down, reaching the rocks in an hour and a half. A more comfortable night than the last being spent at the edge of the snow, in the morning we descended to the mine where I learned that E—— and X—— had arrived the evening before at eight, and that E—— an hour later had departed with a lantern, a foot and alone for Yungay, nine miles distant. I was subsequently informed that he arrived at one A. M., pretty well for a sick man who had eaten practically nothing for twenty-four hours. After a cup of coffee at the mine, I set out for Yungay on E——'s horse, accompanied for some distance by the superintendent, Señor B——, who showed me a different route, part way over the hills, instead of descending as usual straight down to the valley and then along the highway to Yungay. A few miles from the mine on this



Black Rock, foot of North peak, from highest point reached, first ascent, 1906



South peak of Huascarán from same point

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upper path, the photograph of the mountain was taken which in some respects is the best. When, after dark, I arrived at the Casa Vinat a I was thoroughly prepared to appreciate a good dinner and bed. My disgust at the outcome of this expedition was great; but there seemed to be no help for it.

Pablo's account of the climb was amusing. To some persons he said that they had waded through snow up to their waists, to others breast high; instead of the actual half way to their knees. The Se orita, he asserted, sat down and wept and declared that they could go no farther. When it was time to pay the indians for their services, as the agreement had been made for ten soles on condition that they went to the top of the saddle, I declined to give them all of the balance, two soles each having been paid in advance. This appeared to them surprising and very wrong. Accordingly I sent for Se or Jaramillo and in their presence explained what they had done; how without the slightest occasion they had absolutely refused to go farther; whereupon Se or J—— severely upbraided them and agreed that five soles apiece altogether would be sufficient, since they had gone not one fourth of the way from the snow line to the saddle.

CHAPTER XX

FOURTH ATTEMPT ON HUASCARAN

THE day after my return, a letter was received from E——, now at his home in Carhuaz, whither he had repaired the morning after his return to Yungay. He enthusiastically offered to accompany me on another mountain climbing expedition, to Cerro de Pasco, or even to the United States, if I desired: this despite the fact that he possessed a devoted wife and a family of children. Two days later, on the evening of Friday, E—— again arrived in Yungay, now accompanied by B——, the superintendent of the mine, a gentleman of intelligence and apparent endurance, who had expressed a wish to join in a second effort for the conquest of the mountain. I had no desire to repeat so much work for nothing, or for a mere matter of a thousand or more feet. Sleepless nights and tiresome days had left me much the worse for wear, especially because, from again omitting one day to wear a mask on the snow, my face was burned and blistered till I was hardly recognisable. (The silk had seemed too warm and prevented my obtaining sufficient oxygen.) Yet if there was a chance to conquer the mountain I wished to improve it.

After considerable conversation we decided to make another attempt. E—— had shown much energy, but I relied more upon B——, who, if not so enthusiastic, appeared to be a man of better judgment. It was obvious that the indians were useless, but E—— felt sure that in Carhuaz where he lived, he could find cholos, half breeds, without the superstitions of the indians, with equal strength and greater courage. These men, he said, would make a contract before a Justice of the Peace that they would each pay a fine of twenty soles if they did not accompany me to the highest point of the

saddle between the two peaks. E—— at first stated that he could engage men at twenty soles each; later he telegraphed demanding twenty-five, which was dear for this region; but if reliable persons could thus be secured who would enable me to reach the summit, I was well pleased with the arrangement. Unless something was really accomplished, I should lose only the five soles apiece which must be advanced, and I trusted that the imposition of a fine for the non-fulfilment of the task would stimulate the men to do their best. I made no offer in regard to the ascent of the peaks, as until we arrived between them, it was uncertain whether an attempt upon either would be practicable. There would be time enough to make a fresh bargain when we saw what was before us. Letters and telegrams presently arrived from Carhuaz, the last stating that with six good men who had signed the proposed contract E—— would be at the mine the following Wednesday at four.

Once more having made preparations, I set out for the mine where I arrived about six on Wednesday afternoon. No E——! Dinner was delayed but finally eaten. Still no E——! At nine I gave it up and retired, but about ten heard E——'s voice outside announcing his arrival with the men. Whatever the reason, this time not fleas, I was unable to sleep, and soon after five was up and out, hoping for an early start. A long time passed before either B—— or E—— appeared. I had grown quite uneasy over the delay, when E—— came out to say that he had brought with him only three of the six men. The rest had refused to come after dark. Had he told me this the night before, I should not have lost, to no purpose, my morning nap, which I now in vain lamented. E——'s assurance that the men will arrive by eight and we can then set out is futile. I retort that they will not arrive before twelve, possibly two, and we shall lose a day. My prognostication was correct. They arrived at noon, too late to set out. I made the best of it by apportioning in the afternoon the clothes, shoes, and climbing irons, all of which the indians had returned. The

smoked glasses had fared worse, three pairs being lost or broken. For these I substituted several thicknesses of black nuns' veiling which I now made ready. With everything duly prepared I went early to bed.

Friday morning, August 3rd, at eight o'clock, we again set out for the snow, with two burros to carry the baggage as far as possible, B——, E——, and I going on horseback for the same distance. A good path leads from the mill and the superintendent's dwelling up to the mine itself, a half hour above. Beyond this the horses scramble over rocks in a rather alarming fashion. At ten we halt to wait for the burros which climb more slowly.

By a good path surmounting bluff after bluff of the ridge and winding around through a pretty defile, at noon we reach its culminating point. On one side, the south, a ragged rock towers 1,000 feet above, on the other rises 200 feet a modest crag. After a pleasant hour over luncheon, it is high time to proceed, but E——has vanished below. For a quarter of an hour I call and whistle. No response! We ought to start, but E—— had been carrying a canteen of alcohol which I dared not leave behind. At last, directing one man to wait for E——, taking the alcohol, I set out with the others. B—— and I in the lead soon perceive a single man following instead of five. It is useless to wait and we toil slowly upward. After two hours B—— complains of feeling ill, a colic, he says, the result of drinking cold water at luncheon, a beverage to which he is not accustomed. A dose of whiskey from a small bottle which I carried in my chate-laine bag proved ineffective. The rest of the men at last appearing, we straggle upward until near the snow.

Going ahead in search of a good place to encamp, I presently found one that would serve, then shouted, beckoned, and whistled for the others below to come on. They were resting in a gully where to pitch a tent was impossible, but it was a long time before they stirred. Leaving the barometer, which I had taken from B—— in exchange for the alcohol, I hastened to meet them down some difficult rocks;

but instead of coming towards me they turned off to the left halting in a most undesirable place close to the snow. Pausing where I was, I whistled and whistled again: a signal which had been agreed upon for some one to come to me. No one moved. With more and more indignation, I whistled at intervals for ten minutes. As no one stirred, I was finally obliged to go back after my barometer and then descend to the men, where I emphatically expressed my opinion of their conduct. In view of their utter disregard of my express orders, I was tempted to give up the expedition then and there. It was evident that they could not be depended upon, and I should have saved time, strength, and money, had I done so. I stated very clearly that I was the one who was paying for the expedition, and if in future they did not obey me they could look to some one else for pay. If it had not been so late and B—— ill, I should have insisted upon moving the camp then.

The tents were now pitched on uneven stony ground, a fire was lighted and supper prepared and eaten, soon after which I crept into my sleeping bag thoroughly tired out from having carried the mercurial barometer so many hours, and feeling discouraged about accomplishing anything with a set of men who paid no attention to my orders. A sleepless night was no more than might have been expected. Our nearness to the snow seemed to make it unusually cold for this altitude. B—— who was still suffering from the attack of colic ate no supper except some coca tea. One of my Japanese stoves then served him a good turn, keeping warm, as he said in the morning, for two hours and causing him to feel much better.

The alarm clock at five served to arouse the men, and by seven we set out for the place where we were to enter upon the snow. This we were able to do by eight, after putting on climbing irons and rope, which was so much better than before that for the first time I began to feel hopeful. After a short distance, E——, who was leading, having previously stipulated for this honourable position, left our former route,

which had proved a good one, for a more direct line towards the great rock at the foot of the north peak, through a section of the glacier which was more uneven, with larger hillocks and hollows. Although advising that we pursue our previous course, I allowed E—— to use his own judgment, with the remark that if on this occasion his proved poor he must in the future be guided by mine. The way grew continually worse, much more difficult than before. The glacier as a whole was in poorer condition for the hot sunshine of the two weeks intervening had made the slopes steeper, the hollows larger, and the crevasses wider. The cholos seemed efficient except Manuel, who was particularly stupid and clumsy and unfortunately followed me on the rope. True, he had no climbing irons, but no more did I and several of the others, all having nails in their shoes.

In one place we came up a short steep slope with a small crevasse at the bottom, afterwards making a traverse along a moderate incline. E—— was first, B—— second, and I third. Having made the ascent I was slowly advancing when I felt a strong pull from the rear. Without looking around I braced myself firmly, thrusting farther down my ice axe which I had already placed in an incipient crevasse on my right. As the pull increased, I called to the man to come on, at the same time taking a glance backward. It was funny, though the pull was uncomfortable. Manuel was on all fours on the steep slope, not making the slightest effort to recover himself. The leader of the second set of men, Ramos, the most efficient and intelligent of the cholos, was not only exhorting Manuel to go on, but punching him in the rear with his ice axe, which finally induced him to get up and proceed.

A while after, a similar incident occurred. I looked around to see this man again on all fours, with head buried on his arms, too much frightened even to look up and try to right himself. At our noon luncheon, I disposed of the last two raw eggs which had been pressed upon me in starting by Señora Handabaka, rather curious articles to take moun-

tain climbing, but I had safely brought them in a basket to this point. One of these two I bestowed upon B—— who until now had not ventured to eat since the preceding noon. The others ate bread, meat, and cheese, B—— against my urgent advice also taking a small piece of the latter. It was not strange that soon after he declared that his head was worse and he must return to the mine.

Here was a problem! I could not think of allowing him to return alone, though he professed his ability to do so. E—— or Ramos were the only ones competent to accompany him. Ramos consented to go but E—— suggested that he might not return. That would never do! E—— then proposed going himself as far as the edge of the glacier. Declining a proffered piece of the rope they immediately set off. I called to E—— to bring back the climbing irons which B—— was wearing. Though made expressly to fit my shoes, I had given them up to B—— and gone without, as none of the others suited him.

The cholos now desired to pitch the tent for the night. This was absurd. My proposal to lead the way with Ramos second, brought a chorus of objections, as he had led the rear section skilfully; but I insisted, as in leading I could not have next to me the clumsy Manuel. At length we set out, all on one rope. In a short time the men again proposed to encamp. With difficulty I urged them onward. Unhappily a dark cloud such as is often seen near the foot of the peaks soon betokened storm and presently brought snow, compelling us shortly to pitch the big tent as a shelter for ourselves and our baggage. I hardly expected E—— before six; it was two when he left with B——, but by four we heard a voice outside, and lo! he was there. But, I said, you could not have taken B—— all the way down to the rocks. No, he replied, but B—— had declared that he could go on by himself; so he had returned. Naturally he did not bring my climbing irons which I greatly regretted. Also I felt some uneasiness lest B—— should not be able to reach the mine in safety, alone and ill. Afterwards I learned

from him that he arrived at six p. m., and further, a fact which E—— omitted to state, that both he and E—— at different times had slipped and slid for a considerable distance on the ice, though without sustaining serious injury.

When the snow ceased the men declined to proceed, on the ground that the tent was wet and heavy; it would therefore be better to stay there and set out early in the morning. This we did, at least the first part, getting to bed in good season. As usual I put on extra clothing, but not enough, and passed another sleepless night. I have once or twice been amused by being asked how much clothing I took off at night. Obviously none; as it was colder I added more.

The alarm was set at five. I had urged the importance of an early start, but it was undeniably cold. The wind which did not blow much during the night invariably sprang up before dawn, continuing several hours. I had requested E—— to have the kettle only half filled with water for the soup, as it took so long to melt the snow and boil the water. With half the water and the same amount of pease meal, the soup would be equally nourishing. But he replied that they were not accustomed to it that way.

In some respects my separate tent was a serious disadvantage. I was not at hand to regulate such matters, or to insist on the men getting up early. Also it was much colder for me. When I had put on my boots and sallied over to the big tent, the kettle was nearly full of water, hot but not boiling. More alcohol was demanded, more coca tea, this being made on the other stove. By the time the soup was ready and eaten and everything packed for our departure, it was ten o'clock, a nice time to set out on a mountain climb.

We continued our upward way, E—— ahead, I second, until we disagreed about the route. As his judgment had proved poor the day before I insisted on my opinion. Thereupon he said I might lead myself, untied the rope, and went off on his own account. I was satisfied with this arrangement, and we went on, an hour later overtaking E——

who was resting at the top of a snow hillock. He now seemed more amenable to reason and we proceeded together, but at the next halt (the men wished to pause and rest their shoulders every half hour or so), open rebellion arose.

The men declared that the way was more difficult than they expected and they would go no farther except for more pay. Several times before I had been imposed upon, so I determined to try what firmness would do. I told them they had made the contract for twenty-five soles; if they did not carry it out they would have to pay the stipulated fine. They could do as they liked, go up or down. It was immaterial to me. (I was so disgusted with the late start and had so little faith in their accomplishing anything, that I felt quite indifferent.) If they went back now, I said I should pay them nothing more. Then I learned that only three of the six had signed the contract as E—— stated. All but one, Ramos, thereupon set off downward, leaving behind all their burdens, except their own extra clothing. I called to them, "If you leave behind these things, leave also my boots, garments, climbing irons, and ice axes." But here they had the advantage. These they said they would leave at the edge of the snow.

This was a sad plight. E——, Ramos, and I could not carry down half of the equipment. On the whole it seemed wiser to temporise. I did not so much mind paying the ten soles more which they demanded if they really did reach the top of the saddle; if they did not it would not be necessary. And next time I should make sure that they at least brought down the baggage. I therefore told E—— to call them back, that I yielded.

On their return we had an explicit understanding. They were to obey my orders. Having wasted so much time they were to go on that night until six o'clock. On the morrow we should be off by seven and reach the highest point between the peaks that day. There would be three nights more on the snow. They were not to receive the thirty-five soles unless we attained the desired goal. All was agreed to and

solemnly promised and we again set out upwards, E—— also putting on the rope and heading once more for the great rock at the foot of the north peak. Enormous hollows and hillocks appeared between: the way soon seemed impracticable. I pointed out the difficulties, but as E—— urged the matter I suggested his going ahead to investigate while the others rested. After a while, as E—— did not return, I became alarmed and concluded to follow. We went over several hillocks and hollows, whistling and shouting, pausing at length on the brink of a snow wall where I thought E—— might have fallen.

A voice came from the depths, fifty feet below. "What," I called, "are you there? Have you then fallen?" "No," he replied, "I am cutting my way down: have about finished." This seemed incredible as we had waited a long time before following and had proceeded much more slowly than he would have done. Undoubtedly he had had a bad fall from which he was now recovering. Soon, however, we saw him climbing the next hillock. At its summit he declared, as was his custom, that the way beyond was practicable, even easy, and that he was near the great rock, at the foot of the north peak.

I did not like the appearance of the descent into this hollow. It was bad enough for E——, much worse for clumsy Manuel with his pack. Even E—— saw the impossibility of this, and suggested that the packs be lowered by a rope, a course demanding much time. Moreover, the slope beyond was extremely steep. With Ramos holding the rope I climbed down to investigate. The wall was difficult, if not dangerous. There was a small crevasse below into which one protected by the rope could hardly fall, but for clumsy Manuel the descent would have been well nigh impossible. There was no especial reason for going this way or for approaching the rock. The problem was to go up, and from a nearer view, I had concluded that the better and safer way was in the centre of the space between the two peaks rather than close to the north rock. I therefore climbed

back again and gave the word to retreat. E—— declared that he should persevere to the rock and join us later. Argument being useless I made none and we retraced our steps towards the south, as soon as practicable turning again towards the mountain. Though I found an easier route the men soon began to grumble. They were tired and wished to stop for the night. They were afraid of being overwhelmed by an avalanche such as we had seen fall over the south cliffs. Assuring them that we should not go near enough to the peak to be in any danger, I urged that we advance as far as possible, not only because we had made little progress and they had promised to continue until six, but also because E——, having reached the big rock, would surely go up towards the centre and join us from above. The men insisted at least on a short rest. Advancing alone a few moments to see if the way was practicable and finding no difficulty, I returned to encourage the men onward when I found that they had already pitched the tent at only five o'clock. Great was my disgust. I could do no more except whistle again and again for E——'s benefit, to let him know where we were.

Just before dark I saw E—— and heard him call, far to the northeast, with many and impassable hollows between. While eating supper I asked the men to go out occasionally and shout; but they were too lazy to do more than shout from inside the tent. Later when I called and whistled outside, there was no response. It was eight before I heard again a distant cry. Now I bethought me of my hitherto unused folding lantern. Putting this in shape, I asked the men, with rope and candle, to go in search of E——, who might have fallen and if so would perish with the cold. Not a man would stir. I said everything to them in Spanish that I knew how; that they were without shame or pity, no men and worse than women; but all in vain. The lantern hung on an ice axe in the open, and we occasionally shouted, but that was all. I could not go alone, so I stood waiting and wondering if my climbing in South America was to be

concluded by a tragedy. However, I recalled the saying that a madman can do things impossible for one who is sane and I still hoped that E—— would come through the darkness unscathed.

Moreover, the full moon was rising, though for some time it would be behind the mountain. In an hour it would be much lighter. About nine o'clock I heard a welcome cry, and again espied E——, now on the next ridge north with a great and impassable hollow between. I called to him to wait, that we would come with rope and lantern, and before long there would be moonlight. Ramos rushing out of the tent now seized rope and lantern, calling on the others to follow. I had been trying to get some climbing irons, but with no delay I accompanied Ramos down the western slope, as E——, too impatient to wait for the moon, had already started down the other incline towards the west.

In a hollow below we met, when he eagerly grasped our hands with many protestations of gratitude for my interest and care. We brought him back safe and sound, but alas! without my \$60 barometer which he had been carrying. He said he had been obliged to leave this behind if he were to save his life. He knew where it was and would get it in the morning.

There was nothing to be said. Of course E——'s life was more important than the barometer and the latter could not have been saved without the former. But it was his own fault that he had been wandering in the darkness in the midst of that wilderness of crevasses, precipices, and perilous inclines. It was almost a miracle that he had come through safely. He said he would never have found the way except for the guidance of the lantern, as the direction of the sound of voice or whistle was uncertain.

E—— now requested a little of the whiskey which I had brought for emergencies. Anticipating his need I had previously searched for it in vain. Apparently the men had improved some opportunity to drink the whiskey, and then disposed of the bottle. At all events it had disappeared and



North peak of Huascarán, from highest camp



South peak of Huascarán, from highest camp

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never turned up afterwards. The best I could do for E—— was to make tea, after which we settled ourselves for the night.

In view of this adventure I felt more than ever the folly of trying to do anything with such assistants. There was no telling what notion E—— might take next. Plainly he could not be depended upon, and if we should reach the top of the saddle, it seemed dangerous to attempt the summit with him as a companion. The cholos had again been insubordinate. With such people the task was hopeless.

Another almost sleepless night, a headache as well! Early in the morning a man brought over some coca tea after which I felt better. It was windy as usual. When I went over to see about breakfast, the kettle was again full and *nearly* boiling. E—— was asleep. Time passed slowly. The alcohol was again brought into requisition. By the time we had eaten our soup and had everything packed to start, the clock said eleven. It may have been too fast, but it was obviously late. At this rate two days more would be required to reach the top of the saddle. (With my present knowledge I should say four.) What folly to try to go on with such men! We might as well descend first as last. A thousand feet more or less hardly mattered if we could not get to the top. Yet if we could!

I asked the men if they would proceed. All replied "Yes." "Very well," I said, "let us go!" But the alcohol! I shook the second canteen. It was barely half full. I had watched it as carefully as possible, keeping it by me at night, but three-quarters of all we had was gone in two days only. Probably they had drunk it in the morning when getting breakfast, while E—— was napping. At least four days more on the snow would be required to reach the summit. In vain then a single day's advance, all the alcohol would allow, with the possibility of a second desertion by the men if the way proved more difficult, or of any unforeseen calamity from E——. I therefore decided to retreat and not spend another hard day and sleepless night for naught.

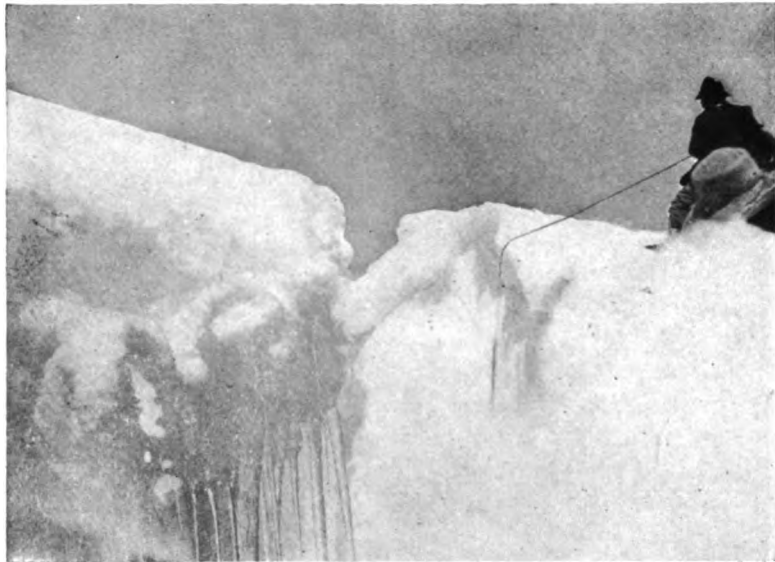
An observation with the hypsometer at this camp had shown the boiling point to be $83^{\circ}.22$ Centigrade, which indicated an altitude in the neighbourhood of 17,500 feet. Hardly 2,500 feet in two days! We appeared not half way to the top of the saddle.

E—— and his own especial man set off in quest of the barometer, while I led the other party downward by a different and much easier route, as it proved, than the one by which we had come up. On the way, turning to the left to ascend a gentle slope in order to survey the prospect in that direction, the south, I was astonished at the top of the incline to find progress barred by an immense crevasse, far larger than any seen hitherto, twenty feet wide and a hundred or more deep, extending straight down the mountain. I thought I should like a picture of this fine sight, and turned to get my camera from the man in the rear who chanced to be carrying it. To Ramos' request for the privilege of being in the picture, I replied, "Very well." I had no thought of his making preparation any more than to stand within range; but while my back was turned to take the camera from its bearer who was in the rear, Ramos, evidently believing that he would appear to better advantage without his pack, removed this from his shoulders and deposited it on the sloping glacier. Hearing a slight exclamation, I looked around to see the pack, carefully done up in a poncho, rolling down towards the brink of another crevasse at right angles to the first. Why Ramos did not at once run forward and stop it I cannot see, except for the old reason that they never hurry. I had the impulse to do so, but checked myself, as it was already half way to the edge and in a moment disappeared over the brink.

Ramos now went around by a snow bridge to the lower side of that crevasse, while I took my photograph of the other without him. Then following Ramos, I peeped carefully over the lower edge of the second. To my dismay this proved to be another big one, also a hundred feet deep, though narrower. On account of a bend in the ice far be-



Copyright, 1906, Harper & Brothers
Highest camp, Second ascent, 1906



Crevasse where Ramos lost his pack

1900

low, we could not see the bottom, so of course no pack was visible. I said there was but one thing to do. If Ramos was willing to be lowered into the crevasse with four men holding the rope, possibly he could regain the pack. If not, it was gone. For this Ramos did not feel inclined, proposing instead to tie his ice axe to the end of the rope and try to fish it up. There wasn't one chance in a thousand, but I let him make the attempt. Lowering the ice axe as far as possible he dragged it along several times to no purpose. Among other things I especially lamented the loss of a fine pair of field glasses borrowed from the Brysons for the trip.

After wasting an hour over these crevasses, we went on with a good degree of speed till suddenly the cross, left near the camp of our former expedition, unseen on our way up, appeared to my astonished gaze. Thence after luncheon I led the way down by our earlier upward route. Despite the deeper hollows, with no trouble we arrived about four at the rocks, where we promptly pitched our tents. An hour later the other men joined us, but the barometer was still missing. E—— said he could not find it. Instead of devoting all his time to the search, he had climbed a few hundred feet higher, to be able to say that he had reached the greater altitude. This was of no consequence, but I did mourn the loss of my valuable instrument.

E—— next announced that he was going at once to Yungay to telegraph his safety to his wife. As he could not possibly arrive in time to telegraph that night, this seemed foolish; but my advice that he remain with us or descend only to the mine was unheeded, though at the moment I understood him to say that he would pause there and have a good breakfast awaiting us on our return the next morning.

Early in my little bed I enjoyed my first good sleep since leaving the mine. Ramos meanwhile had informed me that it was E—— who suggested to the men their breaking the contract and demanding ten soles additional. At the mine next day I was surprised to learn that E—— had not been

there. B—— said there was no other way down and we all feared that he had escaped the perils of yawning abyss and crevasse on the glacier, only to fall from some ledge of rock, now perchance to be lying dead or with broken limb in some out-of-the-way place. There was, however, a chance that he had gone straight to Yungay as he had spoken of doing.

The matter of settling with the Carhuaz people I discussed with B——, with whom I had left my money on the way up. They had been continually insubordinate, had broken their contracts, and deserted me on the snow. The three who had signed were certainly liable to the fine. They had gone less than half the prescribed distance over the glacier. Therefore, in accordance with B——'s advice, I offered to pay them ten soles in addition to the five each which they had already received, on condition that they sign a receipt in full. Otherwise I would give them nothing, but would go before the Sub-prefect later and submit to his decision whether they should pay the fine or I should give them more.

At first all indignantly refused, but after a little talk with Ramos he and the other two who had sworn to the contract signed the receipt and took their money. The others presently followed. They were to return the clothing after being paid, but stole away without doing so, except one who was caught and purchased what he wore. After they had gone I delayed my departure for a while, not feeling quite sure what they might do.

On E——'s horse which had been left at the mine while we were above, I rode off escorted by B—— till we had passed a place where he said some bad people lived. I was accompanied also by E——'s man on foot who was to return to the mountain to search for him if E—— had not been seen in Yungay, while I was to go to the Sub-prefect to ask for men to join in the quest. Half way down the valley a horseman appeared in the distance; — E—— himself and no other! All our alarm for nothing! He explained that he had gone directly to Yungay arriving at two

in the morning. I afterwards learned that E—— had had a bad fall en route, that in the steep descent he had turned somersaults twice, smashing an iron cup which he was carrying on his back, which doubtless saved his spine and life. Having exchanged horses, E—— and I soon parted company, and I never saw him again; he going to his home in Carhuaz while I returned alone to Yungay, fortunately arriving before dark.

Surely I had had adventures, more exciting in reality than in the telling, unless by some more gifted writer. I was now compelled to resign myself to the belief held by all others in the place that successful mountain climbing with the people on the ground is impossible.

Not yet were my adventures over. I learned that E—— had declared in Yungay that he knew where the barometer was and that he would go and fetch it if I would pay him twenty-five pounds. The general opinion, however, coincided with mine, that he had broken the barometer in a bad fall and was too vain to acknowledge it. A few days later Miss Bryson came over with a letter which she had received from E—— asserting that I had *offered* the men ten soles more and must pay them the entire amount. By advice of the Sub-prefect Miss B—— wrote that if the men demanded more they should come to Yungay and make complaint. The Sub-prefect assured me that as the men had broken their contract I was under no further obligations and had even treated them generously. Later E——'s man alone came to Yungay, not of his own accord, but sent by E——. He admitted the case to be as I had suspected: that E——, as a gentleman, did not like to ask pay for his services. He had really wished to go; at the same time he had demanded more for the men in order that he might receive a good commission. This man said that E—— had allowed him to keep but a small part of what he received. The Sub-prefect told the man that I was under no obligations whatever, but as he had come so far I would make him a small present, which I had offered to do, so the man went off contented.

Indirectly I had heard that E—— had said he would like to kill me. With an insane man full of hallucinations, it is impossible to reason. I was therefore glad to learn that E—— had been sent by his family to some Baths, as was their custom when he became more excited than usual. When himself, E—— was always kind and polite, and it was said that E——'s wife once remarked that she preferred him with his infirmity to others who had graver faults all the time.

While regretting that my attempts on Huascarán had turned out so badly, I congratulated myself on getting back alive and resolved never again to go climbing with one who has been really mad. For E—— in his early manhood had been violently insane, the effects it was said of over-study at the University in Lima. When I was in Yungay in 1908, I learned that he had never been to that city afterwards, his mind apparently having again become unbalanced through the excitement attending our expedition.

CHAPTER XXI

LIMA WITH SECRETARY ROOT. CERRO DE PASCO

As it was obviously useless, with assistance procurable in the vicinity, to make further attempts upon Huascarán, I determined to visit Cerro de Pasco, in the hope that among the many Americans there employed one or two of more adventurous spirit than Peter might be found who would be glad to join in an expedition for the ascent of some great mountain. An overland trip to this famous copper region 150 miles to the southeast, I had looked forward to ever since my first visit to Yungay in 1904. The upper part of the thickly populated Huailas Valley manifestly presented a continuation of the magnificent scenery below. The sparsely settled bleak plateau region beyond would be a change; a still greater contrast would be the warm deep valley of Huánuco, from which ascent would again be made to the lofty plain 14,000 feet above the sea.

The journey is a difficult matter, not to be undertaken without suitable escort, a good arriero with horses and baggage animals. Yungay is not a favourable place from which to set out on such a trip, especially for one encumbered with a quantity of baggage. Few persons in the town have mules or horses for hire. The proprietors of haciendas, the Peruvian residents, have their own animals for short rides in the valley, or to mines among the mountains, or for the longer three days' journey to the ports of Samanco or Casma on the way to Lima. Few strangers come to Yungay, those few like myself from the coast, confining their tour to the valley. The arrieros who transport freight to and from the seaports prefer to use their animals on the familiar paths thither, reluctant to hazard an unfamiliar route, and timid as to what might be encountered at the distance of a few

days' journey. On the plateau beyond Recuay, it was said, there were bad people who might steal our animals at night.

This rumour of bad people on the plateau, I concluded from reports heard later, was not altogether without foundation. We should have to camp out at least once or twice. Ten days or more would be required for the journey. Nearly every one attempted to dissuade me, though the Subprefect Cisneros and the Vinatéas made inquiries in my behalf. At length a man was found who after considerable talk consented to go and to provide the necessary animals; but having agreed upon terms he vanished to return no more.

It was necessary then to go back to Lima by the old way. The Brysons kindly supplied animals to Cajabamba, with a note directing their major domo there to send me on to San Jacinto. He was a lazy inefficient individual, more interested in airing his little knowledge of English or trying to learn new phrases from me than in speeding me on my way. If I had not urgently insisted, rising early myself, and with shouts and knocks routed him out of bed, I should not have gotten away the next morning. The man who accompanied me downward was indifferent and the baggage mules were tired. They were not the ones designated by Mr. Bryson for the journey as they had come up only the night before with the mails; but it had been too much trouble for the major domo to bring in fresh animals. Soon after leaving Hornillos, still several hours from our destination, one of the mules lay down, causing me much alarm for the safety of my baggage, and anxiety lest the animals should utterly give out or be permanently injured from over-exertion. Yet we could only press onward. Two hours later near the village of Moro, the animal lay down again. By this time the man realised the importance of keeping the mules going, and by continual beating hurried them along until about seven we at last reached the town house of the Gadéas. With difficulty, this man absolutely refusing to go farther, I procured local assistance for the ten miles to San Jacinto the next morning, when a nice boy of twelve or fourteen who accompanied me

greatly surprised me by refusing any money for his trouble.

Spending one night at the sugar plantation and one at Samanco I embarked Monday, August 27, on the steamer, which seemed a good deal like home; the more as I met on board an American, Mr. Thomas F. Sedgwick; a graduate of the University of California, who, after much practical experience in Hawaii and Peru, was filling the position of organiser and Director of the Sugar Experiment Station in Lima connected with the School of Agriculture. From him I received much valuable information in regard to the sugar industry.

The city of Lima I found full of excitement over the expected coming of Mr. Root, our distinguished Secretary of State, who here made the last of a series of visits to South American Capitals, conveying to the several Republics the assurance of the sincere and disinterested friendship of the United States Government. With the hospitality characteristic of the Peruvians, elaborate preparations were being made for the honour and entertainment of the expected visitor.

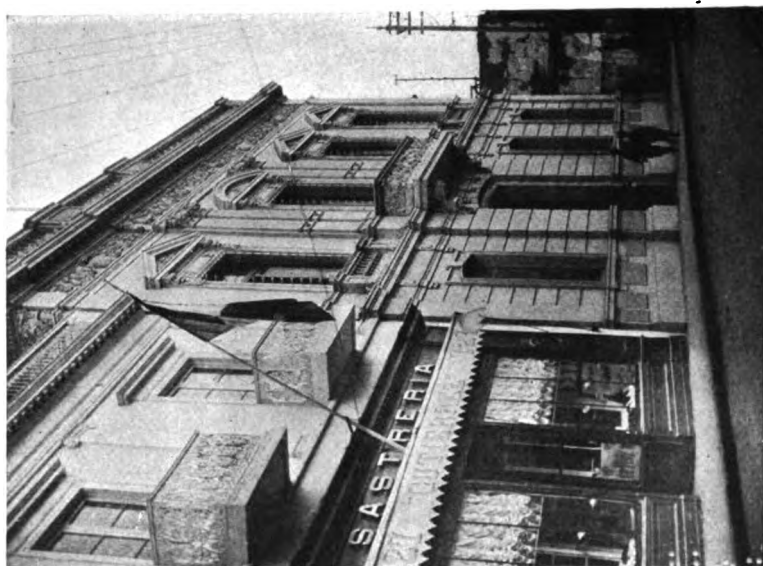
On the morning of the tenth of September, 1906, the United States man-of-war, *Charleston*, entered the port of Callao. From the balcony of the English Club House fronting the harbour, I witnessed the arrival at the dock of boats conveying thither the Secretary and his family, together with the United States Minister, and various Peruvian officials and ladies who had previously gone out to the steamship to greet the guests of State. In the capital city, Mr. Root was first welcomed at the Municipal Building by the Mayor and Town Council; then in the adjoining Palace, the historical residence of the Viceroy, by the President of the Republic, His Excellency, Don José Pardo. A new and elegant mansion beautifully furnished and perfectly equipped, though not previously occupied, had been placed by its owner, Señora Barrera de Pardo, mother of the President, at the disposal of Secretary Root's family.

The same evening an elaborate banquet of seventy covers was given in the Palace by the President to Mr. Root, the members of the Diplomatic Corps and the chief officials of State being present as other guests. On this as on other social occasions in Peru, the guest of honour had an advantage over most of the distinguished foreigners who visit the United States in not being bored to death by a series of speeches. A single brief address made by President Pardo, in offering a toast to the President of the United States and his representative, was responded to by Secretary Root who concluded with a toast to President Pardo.

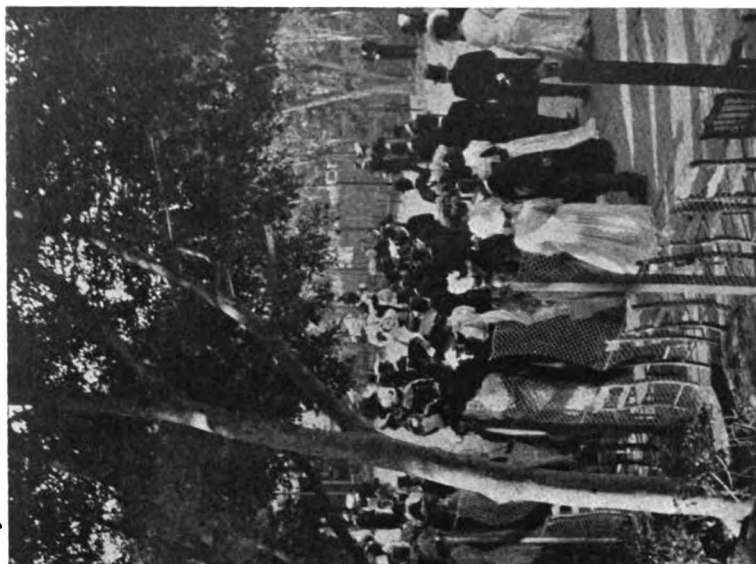
Following the banquet a fine exhibition of fire-works occurred on the Paseo Colon which was brilliantly illuminated by an elaborate electrical display, while an enthusiastic crowd of gaily-dressed people cheered the President and his guest. This Paseo, the favourite walk and drive of the city, having a width of 125 feet, is finely adapted for such a celebration. At one end is the Exposition Palace containing a beautiful hall where grand balls are given and where other exercises of especial political or social importance occur. A pretty park near by contains summer houses, conservatories, tropical plants, and a few animals.

Among the chief objects of interest in the city deserving the attention of every traveller, some of which Mr. Root and his family visited under the guidance of the Mayor, the most obvious is the Cathedral, of which Pizarro himself laid the foundation stone, January 18, 1535, the date also of the founding of the city. The original structure being destroyed by an earthquake in 1746, the present edifice dates from 1758. The imposing interior with five naves and ten chapels contains some finely carved stalls, old paintings including one by Murillo, and among other historical relics a coffin in which the body of the Conqueror, Pizarro, is said to repose. The interesting Church and Convent of Santo Domingo and those of San Francisco deserve attention.

A great contrast to the sumptuous old churches is the



House where Sec. Root was entertained, Lima



Garden party, American Legation

1870

fine new central market, occupying an entire square. Here under strict sanitary regulations is offered for sale a variety of fruits and vegetables, meats, and beautiful flowers; a market for which we might well envy them. In the United States I have seen none to compare with it though such are of prime necessity and importance. A dozen of like character would be a great boon to New York City. From the gallery above, the floor presents a most attractive appearance. It is a pleasure to wander about even with no idea of purchasing, though one is sure to be tempted at least by the cheapness of the flowers, tube roses, sweet peas, heliotrope, roses, and violets, if not by some of the fruit of strange or familiar varieties.

The Senate House, of fine classic architecture, the Chamber with a beautifully carved ceiling, possesses historic interest as originally the seat of the Spanish Inquisition which even in the New World endeavoured to crush out free thought. The Indians, happily, were excluded from its dominion, apparently the only charity extended to them by their Spanish conquerors. On another side of the same plaza is the Chamber of Deputies, corresponding to our House of Representatives. In the centre of this plaza, surrounded by a patch of green, stands a bronze monument to the liberator, Simon Bolivar, the greatest factor in achieving the independence of the South American Republics. Over the entire continent he is held in grateful remembrance.

One of the most dignified and impressive ceremonies with which Mr. Root was honoured during his visit, was his incorporation into the University of St. Mark as honorary member of the faculty of Political and Administrative Sciences; the conferring of honorary degrees not being one of their customs. This ancient university of Lima, nearly a century older than Harvard, and the earliest on this hemisphere, was founded in 1551 by Royal Letters patent of Emperor Charles V and Queen Juana. The especial School of Political Science of the University was in 1874 established by President Manuel Pardo with

the unanimous consent of the Peruvian Congress, under the leadership of the eminent French scholar, M. Pradier Fodéré, six years earlier than the first school of similar character in the United States.

A garden party at the residence of the American Minister, Mr. Irving Dudley, was a very pleasing affair, the more as the afternoon sun kindly graced the occasion, a real and unexpected honour, as at this season he showed his face but three times in a period of two weeks, the weather in consequence being extremely damp and chilly. Peruvians do not seem to mind a temperature of 55° , wearing light clothing both indoors and out, though I shivered in my room a large part of the time in spite of heavy under-wear and woollen jacket; this, be it remembered, in the torrid zone at sea level. The warmest weather of the summer is seldom above 75 or 80° , quite a contrast to the nineties in the shade of our northern cities. At this festivity the ladies were gaily gowned according to the latest Paris fashions, with hats to correspond; the men, that is all of the Peruvians, were in correct afternoon dress, silk hats, frock coats, and mostly grey trousers; a few of the Americans and a stray Englishman appeared in business suits and derbies, whether because they did not know any better or had not the required articles I am unable to state. There was a canvas spread for dancing, which was freely indulged in, and elaborate buffet refreshments were served from a long and prettily decorated table at the side. Beside Secretary and Mrs. Root, the occasion was honoured by the presence of President Pardo.

The round of entertainments culminated in a ball given by the Town Council of Lima in the Exposition Palace which had been beautifully decorated for the occasion; with the Mayor, Dr. Elguera and his wife, acting as hosts. The handsomely engraved invitations, fifteen hundred in number, indicated eleven as the hour of assemblage: Secretary and Mrs. Root arrived at midnight, President and Mrs. Pardo a few minutes later. The elegance of this affair could be



Patio, University of St. Mark, Lima



Reform School

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surpassed in few if any cities of the New World, the excellent music, the beautiful Paris gowns, and the conduct of the whole entertainment. In the large dancing hall during the entire evening a buffet luncheon was served, including sandwiches, cakes, ices, and every variety of liquid refreshment, the most expensive wines to be had as freely as water; but I noticed no one who had imbibed so much as to render his excess apparent. At 2:30 A. M., a regular supper of five courses was served in a capacious dining room, for which tickets were given out, since in catering to so large a number it was necessary to fill the room several times over. With the exception of soup and coffee, the viands served were cold: salads, *pâté de foie gras*, wine, etc. Day was dawning when we departed, some of the dancers continuing until seven o'clock.

The gracious hospitality of the Peruvians throughout the week, both in word and deed, could not have been excelled, the various attentions being accompanied with the most cordial expressions of good will towards the Secretary and the United States Government and of a desire for closer commercial relations and friendly intercourse. Mr. Root made a highly favourable impression on the Peruvians by reason of his able addresses, his evident interest in the recent remarkable development of the country, and his sympathetic appreciation of the learning of their leading men and their patriotic endeavours for national development and progress.

On the 16th of September after the usual calls of farewell, with a considerable escort of distinguished persons, the guests departed for Callao and the warship *Charleston*. The same afternoon, as a slight return for the many courtesies offered them, Secretary and Mrs. Root received on board ship the President of Peru and a throng of invited guests who improved the opportunity of going over the ship, besides enjoying an elegant collation and a brilliant social affair. The *Charleston* set sail in the evening leaving an impression upon guest and host calculated

to exert an influence of great benefit and value upon their respective countries.

My plan to visit Cerro de Pasco, temporarily suspended because of my desire to witness the festivities at Lima in honour of Secretary Root, was carried out the day following his departure. What with the social affairs which I had attended during the preceding forty-eight hours, lack of sleep and hard work in packing, I was so much the worse for wear as to be affected even before my departure with one of the symptoms of *soroche*, a little nausea; it seemed therefore certain that I should now discover for myself what this disease is like; but I would not on that account postpone my journey.

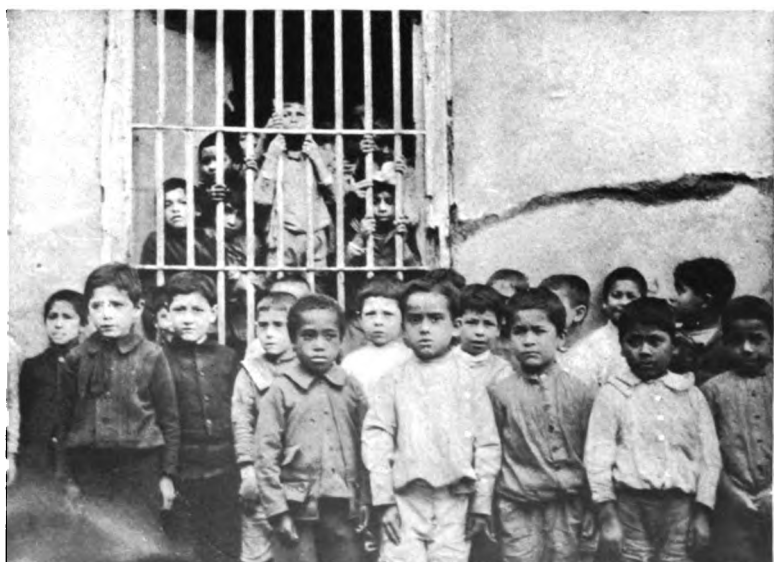
Until a week or two previous, the trip to Cerro had consumed the better part of two days, including a night at Oroya: it had now been crowded into one, doubtless to please the Americans at Cerro by thus saving a day of their valuable time when making the journey. Accordingly setting out from Lima, Monday, September 17, at 6:45 A. M., and arriving at Oroya at three, I was able the same evening to reach Cerro de Pasco ninety miles north of that place.

The scenery of the Rimac Valley, however familiar, can never lose its grandeur. The wonderful seven hours' climb from sea level to a height little less than that of Mont Blanc has an impressive interest and fascination, although the excitement is less than on the first experience. At Matucana a light breakfast seemed the part of prudence; yet so far I was feeling better instead of worse for the altitude and the cool fresh mountain air. At the highest station near the mouth of the Galera tunnel, as the atmosphere of the car was close, I carefully stepped from the train for a breath of good pure air. Hardly had I touched the ground when my head began to swim, causing me to beat an instant retreat to the quiet car. For the next hour, keeping very still, I had no further trouble, which in view of my condition in Lima was as surprising as satisfactory.

About nine in the evening I left the train at Tinayhuarco,



Primary School, Lima



Primary School, Lima

1700

the station being called La Fundición, the Smelter of the Cerro de Pasco copper mines, nine miles beyond. For here was a "Chance Acquaintance," now a bride of three months, who, sailing from New York on the same steamer with me, had gone down to Peru to marry the man of her choice. This gentleman apprised by telegram of my coming escorted me to the large stone boarding house of the Company where they had an apartment. In a room adjoining, fortunately vacant, I was pleasantly quartered for a much longer period than I then in the least expected.

The object of my visit was two-fold: first to see the celebrated copper property upon which more than twenty millions have been spent by American capitalists, a property containing what has been called the richest copper deposit in the world, and second, to make an ascent of some great mountain, with the aid perchance of an American or two who, among the hundreds there employed, might, though destitute of experience, still have some taste and qualifications for mountain climbing. I had heard that there were no mountains in the vicinity, but it seemed incredible that on this great plateau 14,000 feet above the sea there should be no considerable peak within a reasonable distance. Yet alas, the report was true! While beyond the neighbouring hills at the west a long range of mountains appears, the nearer peaks are obviously not very high. At the northwest, far, far away, two great snow covered mountains are visible, the highest 90 miles distant; at the northeast, equally remote, is another lofty peak, invisible from the Smelter, but of imposing grandeur when seen from the hill above.

Thanks to the hospitality and kindly assistance received from the consulting engineer, Mr. Frank Klepetko, and the Superintendent of the Smelter, Mr. J. J. Case, an expedition to the mountains at the northwest was made practicable, and permission to accompany me was granted to two young Americans, who thought that mountain climbing might be considerable fun.

To set out on a mountain climbing expedition with ribs broken or cracked is hardly what one would choose, but when it is that or nothing, no doubt others would say with me, "Let us try what we can do." It happened in this wise.

To obtain if possible some information in regard to the great mountains and the route thither from some of the natives or from the British Consul who had lived there thirty years, I went over on the afternoon train to Cerro, where I was entertained for two days at the Esperanza, the new office building of the Cerro de Pasco Mining Company. The place is of exceptional interest as the highest large mining camp and the highest considerable town in the world: furthermore because the great copper property is owned by a small number of well-known American millionaires.

The town containing about 15,000 inhabitants is 14,300 feet above the sea: an elevation above the top of Pike's Peak, and within 200 feet of the altitude of the loftiest mountain summit in the States which form our Republic. The great plateau region in this part of Peru in which Cerro de Pasco is situated is quite different from the section I had seen in Bolivia: much wider, from 50 to 100 miles broad, and less level, here all hills and hollows, and cut by deep and narrow cañons at no great distance apart. At Cerro is a so-called knot formed by the union of branches from the East and West Cordilleras, as happens at several other points in the Andes. Here the titanic forces of nature have in their struggles thrown up extraordinary mineral deposits, not in regular veins, but in great chunks of richest metals, with outcrops of gold, silver, copper, galena, zinc, and cobalt.

It is these rich mineral deposits which have brought together so considerable a population on this cold bleak plateau with its grey leaden sky. Only grass grows on these rolling hills, though plenty of vegetable food is brought up from deep sheltered valleys near. From the time when

silver was here discovered in 1630, active operations have ever been conducted. At the beginning of this century 45 million ounces of this metal had been taken from the mines, in former days silver instead of copper being the desideratum, though the latter product was not altogether disregarded. Now silver is secondary and copper of chief importance. For the development of this great property which contains nearly 70,000 acres, it is said that a larger sum has been expended than on any other copper holding in the world, amounting, from 1902 to 1907, to about \$23,000,000. Now are flowing in the rich returns. It is said that in 1908, 30,000,000 pounds of pure copper were produced; 45,000,000 were expected in 1909; and it is predicted that in time 100,000,000 annually will be turned out. The output for February, 1910, was 4,000,000 pounds indicating for the year about half the greater sum.

On this large property which includes coal mines and the smelting plant besides the copper veins, a total force of 6,000 men is employed, 500 of whom are whites, the rest indians. Besides purchasing and developing the mines, and erecting buildings for the smelter, offices, etc., it was necessary to construct a railroad from Oroya (which with rolling stock cost over \$2,000,000), and to build hotels, club houses, and dwellings for the American employees.

One might think that it would be disagreeable if not impossible to live at such an altitude, and it certainly is for many. Hundreds of persons have gone down from the United States only to return on account of their health; but with a sound physique, persons of careful habits have no trouble. Over indulgence in food, still more in drink, will produce unpleasant or dangerous consequences, as may over exertion before becoming acclimated, or excessive labour at any time. The climate is really healthy for persons living in warm and well-ventilated dwellings. The occasional change desirable for many may easily be secured by descending into one of the deep valleys, which have a soft and pleasant climate, or by making a visit to the coast.

The excellent grass of the otherwise barren plateau supports many flocks of sheep, llamas, and cattle.

The town is an interesting place on the top and side of the ridge beneath which are the rich mineral deposits. For hundreds of years miners have burrowed underneath, excavating tunnels and huge chambers, which they left to stand or fall as might happen. In strolling about the town one suddenly comes upon great open pits or quarries several hundred feet deep which add to the already picturesque appearance of the place. Here and there, too, great cracks threaten the safety of the residents. During two visits to the place, I rode about the town and neighbouring country, visited the market place, the hospital provided by the Company, and spent one night at the Hotel Universo, a shabby looking establishment with accommodations better than I feared. The houses made of stone or adobe are some very comfortable, these inhabited by Spanish Americans; others occupied by labourers have a single room with no window and are heated by peat fires; the better classes burn soft coal.

On account of proximity to the equator, about ten degrees distant, the temperature is not so low as might be expected at this altitude. For one period of six months the variation was only from 28° to 64° Far. 10° is the lowest point ever recorded. The seasons are called wet and dry, the latter from April to November, though it is liable to rain, hail, or snow at any time; seldom however is there more than a few inches of snow, which disappears at the longest within forty-eight hours. To many the country seems cheerless, but most of those who stay long enough to become accustomed to its desolate appearance find a charm in the graceful outlines of the hills, in the jagged black cliffs of the distant mountains, and in the fine pure air in which a walk or a gallop over the rolling country is the best of tonics: a charm which appealed to me on very short acquaintance.

Among the 15,000 people of the town I was unable to



Hotel on Plaza. Cerro de Pasco



Market Place, Cerro de Pasco

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discover any one who could give me the definite information desired. For the return journey, as the one daily train to Smelter left at five o'clock in the morning, I accepted the kind offer of a mule. I had never ridden alone before, but as I had found the mule well disposed the previous afternoon, and as I had no fear of the natives, there was apparently no occasion for uneasiness. I did not like to ask for further favours, so I set out alone about eleven o'clock Tuesday morning.

With fine bracing air, a good road, and an easy-going steed, I was thoroughly enjoying myself, when suddenly the *alforjas*, cloth saddle-bags, slipped back to the ground. The mule obligingly stopped of his own accord. Obviously I must dismount and go back for the bags which I did, while the mule turned around to watch the proceedings. Fortunately, later it seemed unfortunately, I had this season become so proficient that I could get on and off a horse from the ground without assistance; so when I had carefully replaced the *alforjas*, I did not bother to lead the animal to the bank by the roadside, but placing one foot in the stirrup swung up and over. He seemed a gentle beast, and though he was now facing towards home the wisdom of turning him around before getting on did not occur to me. Moreover, never having mounted before without some one holding the bridle, unsuspicious of danger, I had thoughtlessly ignored the simplest precautions, merely taking hold of the saddle with both hands as I had been accustomed. Great was my astonishment, when, before I was fairly over, that mule bolted. For a second only was I aware of clinging with both hands to the saddle, while the beast rushed madly onward. In my next moment of consciousness, as afterwards appeared, about an hour later, I was surprised to find myself sitting upright, on a bank by the road side, my *alforjas*, the occasion of so much mischief, lying beside me; the mule near the top of a hill the other side of the way. Obviously, being stunned by fall or kick, I had immediately picked myself up and my *alforjas* and come

to this place. From the variety of my injuries, as later discovered, I must either have been dragged by the mule, or else rolled down the bank when he started up the hill.

Although suffering no pain, I felt disinclined to move and waited. Fortunately, a native soon came along with an empty cart, lying on the bottom of which I was carried back to Cerro, meanwhile becoming aware of a pain in my ribs. Though I had ridden little more than a mile, I had been absent about two hours. I probably looked rather pale and my face bloody, as the gentleman who met me at Cerro called for a chair to carry me upstairs; but I assured him that I could walk and did. The excellent surgeon of the Company, Dr. MacDonald, arrived soon after the hasty summons. Finding several ribs fractured he applied strips of adhesive plaster half around my body, he bandaged a severe bruise on my left arm, and dressed with collodion a deep gash on my forehead, and one on my right hand; ignoring eight slight abrasions on this hand, four bruises on one leg, and other minor injuries, including a cut on the back of my head discovered later.

For two days, though able to move otherwise, I could not lift my head straight up from my pillow. On Saturday for the first time I dressed and went down to dinner. Sunday, there being no train, I returned to Smelter on a locomotive, to which, in spite of considerable assistance, I climbed with difficulty. Tuesday, a week from the day of the accident, I rode very slowly on a gentle horse five miles, on Wednesday walked the same distance, to obtain at Señor Fernandini's Smelter more information about the mountains. Friday afternoon, after a curious momentary pain, as if something moved, I again went to Cerro. Though Dr. MacDonald was leaving for Europe the next morning, he kindly made a thorough examination, as a result of which, to my great satisfaction, he pronounced everything all right, adding, "You have a splendid heart, I don't see many like that, and lungs, too:" a pleasant confirmation that my earlier confidence in my sound condition was well founded.

I now planned to set out for the mountains on the following Tuesday. That I was compelled to wait until the subsequent Saturday for the boys to procure films from Lima, was hardly a matter for regret. My ribs were still sore. I was far from having regained my strength. I had been obliged to sew and make other preparations for the expedition, and doubtless looked as I felt rather peaked.

CHAPTER XXII

THE SOURCE OF THE AMAZON

ON the 18th of October our party after the usual delays set out about eleven o'clock instead of at the appointed seven. Besides the two young men and myself on horseback, there were two mules heavily laden with baggage and a third bearing the youth who was to look after the animals and act as guide. The horse previously assigned to me was so very frisky, dancing about, that in my dilapidated condition I did not venture to ride him; in fact I should have preferred not to under any circumstances. Ned, therefore, kindly loaned me his own animal, which appeared more gentle, and mounted the fractious beast himself. Now eighteen days after the accident, my ribs were still sore: there was no spring in me, and throughout the entire journey, after putting my foot in the stirrup, I had to be boosted into the saddle by one of the boys. It was evident that the Smelter people, especially the ladies, believed that I was setting out on a foolhardy undertaking. I had some misgivings myself on the subject; so that I remarked on departing, in order to be on the safe side, that very likely they would see us back within a day or two. My doubts were as to whether I could endure the long horseback ride, 90 or 100 miles each way; if so, I felt sure I could manage the climbing. With the usual masculine attitude, the young men, in spite of their inexperience, still, I believe, were confident of their ability to do as they had been told by Mr. Klepetko they must: climb at least 1,000 feet higher than I. Not that they displayed any offensive arrogance. They were most agreeable and considerate companions, and the whole expedition was by far the most enjoyable of any that I have undertaken in South America. It was a great

pleasure to have courteous English speaking assistants, and to be relieved of some of the labour of packing and especially of attending to the stove. But I think that they did expect, being both stalwart young fellows, to leave me far behind when it came to mountain climbing, despite the fact that they knew I had had much experience and had already attained a height of 20,500 feet, a greater altitude than had been reached by any man residing in the United States.

Hardly were the good-byes said when one of the mules, unused to carrying cargo, bolted at a frantic pace down the long steep hill back of the Smelter dwellings. I paused where I was, to witness the catastrophe, and dismounted to await repairs. No pack could stand the mad rush downwards. After much bouncing, it came off, scattering a varied assortment of articles in every direction; but within a half hour, with no more damage than a broken lantern, we pursued our way, the obstreperous mule, after this vain effort to escape, proving more tractable and serviceable than the other.

After crossing the swampy hollow below Smelter, we surmount a *col* opposite, from which a short descent on the farther side brings us to a broad expanse of plain. The prospect extending for many miles before us is curtailed on either side at a lesser distance by the gentle slope of the ground, though above this at the left may be seen a fine line of sharp-toothed peaks of the Black Range with occasional flecks of snow.

At the foot of the *col*, a stream barred the way causing a *détour* to the right till we came to a bridge affording passage. An hour after crossing the stream, we reached a considerable village, inhabited by half breeds and indians. Some wonderfully black clouds which we had long been admiring and preferred to admire at a distance here met us with vivid salute: extremely sharp flashes of lightning and a cannonade of the heaviest thunder, the accompaniments of a furious snow storm. As on this great plateau

it is a frequent occurrence for persons to be killed by lightning, I deemed it the part of prudence to seek shelter in a vacant house. Across the way some natives were engaged in prayer. After a half hour's delay, when the worst of the storm was over, we went on by a very good road to Vinchus Cancha where we arrived about three. At a small hotel here, a cup of tea had been enjoyed, when the English superintendent of the mine, Mr. Ralli, came to escort us to his home where we met his Peruvian wife and baby. After a good dinner and pleasant chat, we were glad to close our arduous day by retiring early in expectation of a more laborious morrow.

A strip of the plain several miles in width was still covered with an inch or two of snow from the thunder shower of the previous afternoon, as we set out from Vinchus Cancha at eight o'clock in the morning; but in the midday sun this would soon disappear. From the middle of the plain to which we descended, our course lay to the right or northwest in the direction of the great mountains which at Smelter we had admired in the far distance as they peeped over the *col* we had the day before crossed. A mile or two away on our left was a pretentious hacienda, a group of large white buildings enclosed by a high and massive wall. At long intervals we observe flocks of sheep grazing or meet one driven by several natives. Lonely in the wide expanse are scattered a few indian dwellings.

In our rear at the right, in a northeasterly direction, we presently perceive a peak which is believed by some persons to be the highest in this region or even in South America, 24,000 or 25,000 feet it was said. In the clear morning air it was a splendid sight, somewhat pyramidal in shape, looking very steep yet largely covered with snow. It appeared a difficult, if not impossible climb, yet rather more accessible than that towards which we were tending. The two appear about equally distant from the hill above the Smelter, but no one could tell us what town if any the northeast one was near, how it might be approached, or even what was its name.



Smelter, Cerro de Pasco



Vinchuscancha after thunder storm

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It is useless to ride at random across the plateau, since this is cut by many cañons two or three thousand feet deep which have almost perpendicular walls, and which, therefore, like the Grand Cañon of the Colorado, may be descended only at certain points at distant intervals.

The mountain range ahead, hitherto concealed by the crests of the rolling plain, about eleven o'clock came into view, perceptibly nearer, we were pleased to observe. The impression received at Smelter as to the impossibility of climbing, without Swiss guides or perhaps with them, the highest of these mountains, and as to the difficulty of the next highest in that region was here confirmed; but among those numberless, nameless peaks, there must be one that we could scale, while gaining some knowledge of the country.

At this point we turned down the head of a small cañon, pausing for luncheon in a pretty spot below where there was good grazing. As the pack animals must be relieved of their heavy burdens and have time to feed, our usual noonday halt was an hour and a half, which afforded us also a welcome rest and ample opportunity to enjoy our luncheon. Farther down the valley are curious rocks, some sheer and splendid cliffs, and incredibly steep slopes of grass, where sheep nevertheless are grazing. A cluster of cottages adds a human interest. Climbing up out of this cañon, we go down into another and another, mostly descending, the last of these leading into a branch of the deep cañon of the Hualaga River, 2,000 feet above its floor, on which the town of Yanahuanca is situated. The opposite wall, 3,000 feet high, is nearly vertical. This side is sufficiently steep but at this point presents a few well cultivated terraces on which are many dwellings. The flowers and bushes along our pathway, the willow trees, the green patches of alfalfa look restful to eyes long accustomed to the brown treeless plain. Down stream the walls of the cañon continue at the same height. On the distant horizon, northeast, are peaks jagged and black.

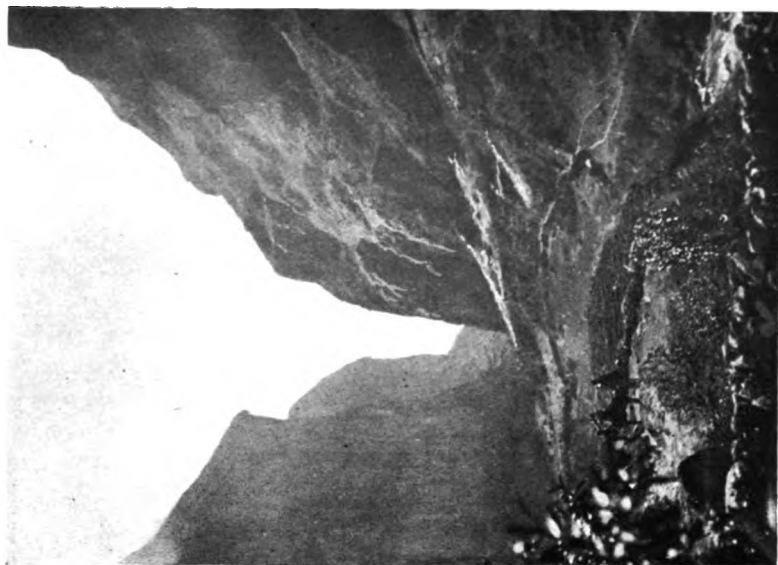
After descending to the town by the steepest bridle path I

had ever travelled, which compelled me to walk part of the way, it was grievous to learn that we must go up on the same side of the river 1,500 feet to the house of M. Paul Bories, to whom we had a letter of introduction. The stupid man who had come from Vinchus Cancha to show us the way had brought us down by the wrong branch of the cañon.

The people of the town seemed greatly interested in the appearance of the strangers, some of them rudely so. We were too tired to enjoy the really delightful ride up, in the fast fading light, but before dark we arrived on the broad and sloping terrace where the home of M. Bories is situated.

It was no misfortune that in the temporary absence of the gentleman who returned the next morning we were obliged to remain over one day enjoying the gracious hospitality of our hosts and getting well rested for the continuance of our journey. Although fatigued on my arrival, I rejoiced that my condition was no worse. I knew then that I was fully "fit," ribs cracked or mended, for whatever lay before us.

The inefficient youth who had accompanied us from Smelter was now dismissed, as well as the man who had come from Vinchus Cancha; Mr. Bories procuring for us in their place two stalwart men familiar with the country to the west. Monsieur B——, a Frenchman with a Peruvian wife, was the first person whom I had met who seemed to possess any knowledge of the country outside of his immediate vicinity. The highest of the mountains, which is near Chiquián, he declared to be absolutely unclimbable. I decided then to turn in the direction of the second highest, which had from the first seemed to me more within the range of possibility. This second mountain, the chief of the Raura Range, possessed an additional element of interest from the fact that the great glacier on its western slope, as M. Bories informed us, is the original source of the mighty Amazon. True, there are many claimants for this honour, since the rivulets which contribute to the formation of this greatest of all



Gorge near Yanahuanca



House of M. Borjes, near Yanahuanca

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rivers are numerous and remote; yet the pretensions of the Raura Range seem justified.

The Amazon is formed by the union of the two rivers, the Marañon and the Ucayali. The smaller of these two, the Ucayali, is naturally considered the branch: the Marañon, too, comes from farther west. On both counts it is entitled to be considered the main stream, though the chief consideration is that it bears the greater quantity of water. Lake Lauricocha has been called its source, but there is a rivulet and other lakes farther back with Lake Santa Ana as the last and the glacier above this as its ultimate origin. This then was our destination.

Tuesday morning, well equipped and well rested, with two good men, Pablo and Julian, we descended to Yanahuanca, crossed the stream on a fine arched stone bridge, and proceeded up the narrow cañon by a nearly level road, until by a still narrower side cañon we began to climb out to the farther rim. Amid blossoming roses and other wild flowers, along the bank of a foaming brook, often overhung with willows, at first between massive gloomy walls, then among rocks of red and yellow, past a picturesque village, up to a wider valley, on we go through a long delightful morning till we emerge once more on the great plateau, now much nearer to that lofty rock-ribbed giant.

After a few miles more in that direction we turn to the south leaving the great peak behind at our right. My efforts to learn its rightful name bore poor result. Three different ones I heard, La Viuda, evidently a favourite appellation, since it is applied to several different mountains in various localities: another name seemed to be Caballococha or Caruascocha, but cocha is rather the indian for lake. Nobody would write the name for me, and there seemed to be much uncertainty as to the proper title. In the afternoon we rode among the foot hills of the range, coming about five o'clock to a beautiful little lake, Caballo Cocha, on the edge of the Cordillera where we encamped for the night seven leagues from Yanahuanca.

We had now our first trial of Ned's cooking. This burden, to my great joy, he had assumed, on account of his experience with the two alcohol stoves which had been brought from the Smelter laboratory. They proved a great success, and we were soon enjoying an excellent supper of fried bacon, beans, and cocoa. There was a house or two near by from which some of the people came to look at us when we encamped and in the morning, but in no unfriendly manner.

The next day, passing to the right hand corner of the lake we climbed by a steep path to a *col* from the top of which a backward glance revealed three clear green lakes, one above another, among sheer rock walls, a charming picture recalling memories of Tyrol, though here the rich verdure of the Tyrolean landscape was altogether lacking. Farther on there was a rather long unpleasant traverse across a sharp incline at the head of a deep valley which gave into the distant plain. The path was so narrow that a horse's stumble would surely have set one rolling several hundred feet below. The bridle paths near the Huailas Valley were in comparison broad highways. The next turn to the left brought us over another *col*, when the plateau is finally left behind. For the remainder of the journey we are surrounded on all sides by sharp rock peaks or larger snow-clad heights. We ford several streams, we pass dainty pellucid lakes of the deepest blue, one of these half enclosed by immense glaciers coming down to the water's edge on the slopes of that second highest mountain which we had seen from Smelter. This side does not look at all inviting, but M. Bories had declared that on the western face it would be an easy walk over almost level snow to the summit. While the opinion of a non-climber as to the impossibility or the ease of an ascent must be taken with some grains of allowance, it was obviously worth while to investigate the western slope.

Our noonday halt in the midst of these romantic scenes, indeed the whole day's journey, was a pleasure unalloyed. In the afternoon, a long climb up a moderate slope, followed

by a descent upon a path so steep that no one dares to ride, brings us into a broader valley, a good part of the floor of which is covered by a considerable lake, Tinquí Cocha by name. Near a little stream, the outlet of the lake, encompassed on all sides by rugged cliffs, we encamp. Not far away is another party of travellers, natives going north by a different route. Too tired for much labour we satisfy ourselves with tea, cold meat, and crackers, and are soon in bed. It is cool, a little below freezing, but not as on the snow fields of Huascarán, or even as on the puna of Bolivia; we are no doubt higher than the latter, but less exposed to the wind.

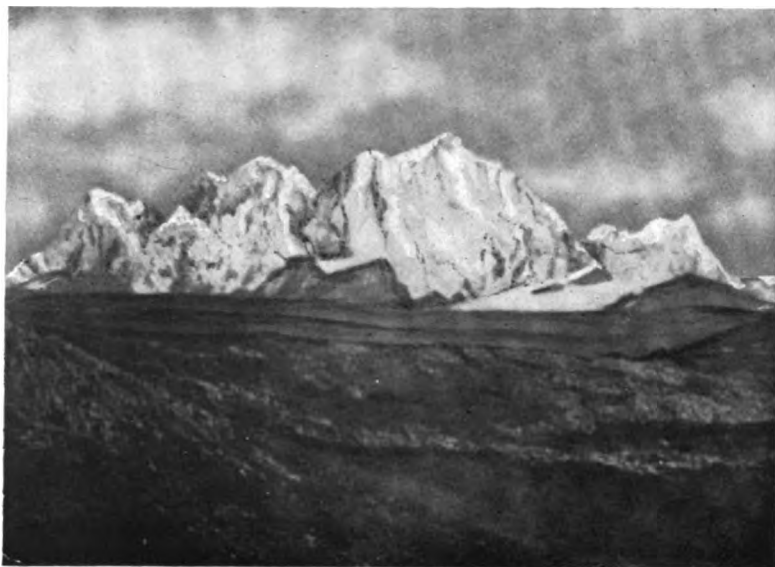
In the morning it is a delightful ride to the farther side of the valley, then along the margin of the lake with perpendicular cliffs rising on the other side of the narrow path. After crossing a tributary stream (from Lake Santa Ana), near which a cattle ranch is located, we surmount a long slope, and passing over a col at the left find ourselves on the northwest side of the Raura Mountains, where an immense snow field leads gradually up to several summits.

Having encamped about half past two, I improved the afternoon by making a reconnoissance with Julian to ascertain where we could best enter upon the glacier, in order that no time on the morrow be wasted in the quest. For while we encamped on the nearest available bit of level grass land, the glacier was still at some distance. The snow field did not appear very steep or greatly crevassed, but at its foot the ice wall was too high and rugged for us to enter upon it there. It was therefore necessary to go around to the right hand side, farthest away from the peaks, then approach them by a sort of terrace half way up the glacier, or climb straight up to the top of the ridge, and then proceed on the *arête*, the top of which had a very gradual slope to the highest summit away off to the left. The terrace seemed a more favourable route than the *arête* except for the fact that about half way along there was a perpendicular ice wall which at right angles crossed the glacier from the top

of the *arête* down to the very bottom. A few breaks in the wall might, however, permit a passage. Which of these routes we should take, a nearer view would enable us better to decide.

The alarm was set for four that we might be ready to enter upon the ice by the time it was broad daylight. The boys demurred at this early hour, inquiring how long I thought it would take to reach the top of the mountain. I explained that it was impossible to tell. The glacier looked easy for the most part, but might be much more difficult than from this distance appeared. How far it was to the summit or how long it would take, even if we encountered no serious obstacle, no one could know. It might be four hours, more likely six, getting us to the top by noon, but I was prepared to keep on until three in the afternoon, if it should prove necessary. "Whew!" said Pat. "I had no idea it would take so long as that." "Well," I rejoined, "that is something no one can say, or even whether we can get up at all." As it was desirable that one of the indians should attend us to carry our cameras, luncheon, etc., I offered additional pay to either of the men who wished to go; Julian, who had seemed the less intelligent of the two, accepting the offer, proved a more valuable assistant than I expected.

Eight o'clock found us prepared for the night with the alarm clock as usual in the boys' tent. On this trip the indians were sleeping in the open of their own preference, partly to look after the animals. For the first time on the journey I slept little; the night seemed interminable. I kept wondering the boys did not call me, till finally perceiving the approach of dawn I shouted to them to discover that it was already half past five. I arose and expostulated. Ned stoutly maintained that he had not heard the alarm. Pat confessed that he had, but supposing Ned had also he did not trouble to say anything and dropped asleep again quite unintentionally. His carelessness was explained a day later, when Ned inadvertently mentioned that on the afternoon of our arrival at this point, Pat had suggested to Ned that we



Mt. La Viuda, near Chiquián, Peru



Caballo Cocha

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climb the mountain that afternoon. In spite of my explanation and his own absolute inexperience he apparently clung to the conviction that his judgment was the better and that the early hour of starting was unnecessary.

Setting out at seven instead of half past five we made a rather ugly traverse at the foot of steep rocks across a sharp incline where our footing was very small stones, the German Geröll. Beyond this we climbed over rocks along the foot of the glacier and around the corner at the right till we came at 8:20 to a place where we could easily enter upon the ice. Here we put on the rope and as many climbing irons as possible. Pat's boots having no nails were first provided. Ned's boots had a meagre supply and he put on the only remaining crampon that was large enough to fit. While sitting on the edge of the glacier superintending operations, I carelessly dropped one of mine so that it fell into a cavern under the ice whence it was impossible of rescue; accordingly I did not wear any. A fine new pair of rubber boots, kindly loaned by Mr. Klepetko and now donned by Julian, proved of excellent service.

After a half hour's preparation we entered upon the glacier which we here found in excellent condition, hard but not slippery.

While the incline of the glacier towards the several peaks at the east was very moderate, we presently discovered that the slope up to the *arête* in front of our camp, which led to the highest summit, was in its upper part very sharp. The comparatively level terrace, therefore, midway on this slope, seemed the more desirable course to follow. With some devious windings we reached the terrace level on which we advanced for a while. It was, however, doubtful whether we could pass the perpendicular wall then confronting us in the distance. To scale it with unskilled companions was impossible. No break appeared at this point, and whether we could ascend along its foot to the *arête* above we could not see.

Accordingly, at a place where the slope to the *arête* above

showed but few crevasses, it appeared wiser to turn directly upward. From the beginning I had taken the lead followed on the rope by Pat, Ned, and Julian. The incline soon became so steep that we were obliged to zigzag, even so, with occasional halts for breath. A bend to the left on account of a great crevasse was followed by a turn to the right to avoid an impassably steep slope of hard ice with a small crevasse at the top. Now having turned again to the left so that I was above the hard ice slope, I was startled to find myself slipping. The thin coating of snow in the heat of the day (it was now nearly noon), had become soft enough to give way beneath my feet. I quickly struck hard into the ice with the head of my axe. Pat, whom I had wisely placed second, having perceived on the journey that he was the cooler and less emotional of the two young men, was holding the rope taut; the snow packed as it was pushed, so I slid only a foot or two. Very carefully, then, I regained my feet, and standing quite still looked up and down. The angle of the slope was here 50° or more. It had been gradually increasing and looked still steeper above. If a few steps would have brought us to the top of the *arête* I might have ventured, but there was still a distance of several hundred feet. Should we all slide down, if we were going fast enough to escape the big crevasse, 100 or 200 feet deep, we should continue to the edge of the glacier, 2,000 feet below, drop off twenty or thirty feet to the rocks, and then probably bounce and plunge down 1,000 feet more. I preferred not to do any tobogganing here. A Swiss guide, of course, could easily have cut steps, so that the rest of the ascent could be made in perfect safety to the top of the incline; but I had not muscle enough to do this, and I felt quite sure that the young men, though they had said nothing, were having all they wanted in following me.

I therefore gave the word to retreat, at least to a safer position, a more level spot below the hard ice and above the big crevasse. I instructed the men to move only one at a time, while the others were carefully holding the rope.

Julian, who had been in the rear, accordingly moved down as far as the rope permitted, when it became Ned's turn. He slipped a little where he stood. He shrieked. He also swore. When he tried to regain his footing he slipped again. More shrieks and violent language! I endeavoured to reassure him, pointed out the necessity of coolness, gave explicit directions, but for some time in vain. We were now employing the utmost caution as the condition of the snow demanded. One would move a few feet, then another. But as we were arranged, Julian and Ned were able to move several times before Pat and I were obliged to stir. Julian did nicely, but when Ned became composed enough to proceed he slipped at every step. Shrieks and swear words were common, though as Pat afterwards remarked, prayers would have been more appropriate. Although on account of Ned's nervousness, our position was really dangerous, his contortions and exclamations were so funny that I burst out laughing; very carefully though, lest my merriment should cause me to slip. Pat joined in my mirth and I laughed more than I had done in a year over the ridiculous situation. Possibly this, though without such intention, helped Ned to recover his nerve. He braced up immediately, he was getting, too, on less sloping ice, and soon we all arrived where we could stand comfortably without danger.

"Shall we give it up and go down?" I now inquired, thinking that the boys had had about all they wanted. Although this was undoubtedly the case, they were too plucky to confess and say "Quit," so they left it to me. In view of the lateness of the hour, it was useless at the moment to strive to reach the top, but if they were willing to make another attempt on the morrow, setting out more seasonably, I said that I should like, with that in view, now to investigate two possibilities, to which they agreed.

First I turned to the southwest, away from the summit, making a traverse along the face of the slope to see if, at a greater distance, the upward incline to the edge of the *arête* would not be more gradual. One fairly horizontal and easy

bit taxed the boys' nerves, but with a little coaxing they came on nicely. The place was a level stretch, 10 or 15 feet long and about a foot wide, with an extremely steep slope below, and on the upper side an immense cavern fringed with icicles above, extending back into the glacier and down to an unperceivable depth: a peculiar formation such as I have never observed in Switzerland, though later I saw many greater caverns on Huascarán. As we proceeded, the crevasses became more numerous above, as on all sides, destroying all chance of ascent in this quarter. As we therefore retraced our steps with the idea of going on to examine the ice wall in the direction of the summits, while passing over what seemed to be hard white snow, my ice axe with which I continually tested the surface in front went down through. In another place and still another I tried with the same result. There was no sign of a crevasse yet this was evidently hollow ground, *i. e.*, snow, the extent of which was uncertain. If much of the snow of like appearance were of the same character, the glacier was largely hollow. As there was no way of telling where the caverns existed, it was obviously dangerous to continue on the treacherous surface. Open crevasses are easily avoided, but great covered caverns are different.

With a very early start one might reach the summit of the mountain in safety, but it would be impossible to descend before the snow became soft. Such a condition I had never met previously, either in the Alps or South America. It seemed discreet to take no further chances, but to get off the glacier at the earliest possible moment. Winding along in the midst of crevasses, we reached a sort of ice parapet three or four feet high, whence the glacier, uncrevassed, sloped smoothly down, and one could take a diagonal towards the rocks at the side. But here was the pure white wavy snow such as had proved hollow above.

Down at the left, obliquely towards the rocks, was a patch of grey which I recognized as surely solid ice. Directing all the others to discard the rope and Julian to take out the



Raura Range, Source of Marañon (Amazon)



Glacier from rocks at the right

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extra length he had brought in case of need, I had the two pieces tied together. Then I instructed the men, while I advanced, to hold the rope tight, gradually paying it out till I reached the hard ice when I would untie, they could pull it up and Ned could come down. But no! Ned insisted, in spite of Pat's urging, that they come in their previous order. Ned had good grit except when a little nervous from inexperience. Then the boys inquired, "How will Julian get along?" "Well," I said, "obviously some one must come last and it might as well be he as any one."

Climbing over the parapet I contrived to get down on the other side, which was much lower. Beyond this there was no difficulty except that at first, in their extreme care, the boys held the rope so tight that I could not go at all. After a little exhortation they acquired the knack, but a few feet only from the parapet my ice axe again went through; again and again, in all directions. Yet we *must* go that way, so urging them to be very careful when they came as they were considerably heavier, I put my ice axe down very lightly, rested much on my left hand, and sidled onward, distributing my weight over as large a surface as possible. Farther down where it was not so steep, I walked upright, the rope just reaching to the patch of hard ice. When I had untied, they pulled up the rope, and Pat came down; again, and Ned arrived in safety. Now Julian, the rest of us holding the rope below. Luckily the man had plenty of courage, possibly not appreciating the danger, and soon he joined us on the hard ice. Sensible he was too, though in some ways not appearing very clever. His usual expression was child-like and bland, and he now drawled out in Spanish, "If one is afraid, it is dangerous; if one is not afraid, it is not dangerous," in which statement there is much truth.

Again I put on the rope and proceeded as before, but it reached only half way to the next ice island. After I had untied, and it was hauled up, I thought I might as well advance as stand there. Since the rope did not reach, we concluded that the men might better come all together, roped

as far apart as possible. Another stretch in similar fashion brought us to hard ice near the rocks, where after a little wandering among crevasses we found a place where we could gain the rocky slope. Here the boys grasped my hand, warmly congratulating me (it happened to be my birthday) upon having brought them safely out of the perils of the glacier. Ned enthusiastically declared that he never *dreamed* that a woman could have such courage combined with such discretion and prudence, which statement Pat heartily endorsed; though I did not myself agree that those qualities are so rare among my sex.

While rejoiced to be off that treacherous ice, we were still far from being down the mountain. As the rocks beyond looked dangerously smooth and steep we descended mostly in the gully close to the glacier. Here a funny thing happened. At a sharp corner there was a slightly difficult bit, where Pat, still second though unroped, sat down on the rocks. I called to him to come on, that if he did slip it would be only a few feet and there was no danger. But while in real peril above, he had been perfectly cool, there he sat refusing to budge an inch. Ned came down and easily passed him by, but Pat remained firm. Declaring it to be perfectly ridiculous, I said "Stay there, then, if you want to," and went along with Ned.

Presently the glacier seemed easier, but after going a short distance upon it I again took to the rocks. These, a little below, were covered with small stones, a particularly dangerous condition, though the stones were here so numerous as to make the slope look safe. But as I stepped, the stones hustled downward carrying with them others below, till in a moment I found myself where the few steps back to the gully looked risky and even my standing position was precarious. I therefore sat down to wait for Ned who was a short distance behind. By reaching out his ice axe to me, while he was standing in a secure position, he could make the return to the gully absolutely safe. As Ned approached, I shouted to him to keep in the gully; not to come near me. In spite

of reiterated orders, he persisted in advancing until he almost pushed me from where I sat; then at last perceiving the danger, he sat down just above, a trifle nearer the gully, not daring to take another step in any direction. After duly scolding him for not doing as I said and thus increasing the difficulty, as we sat there, I whistled and shouted for Pat. It seemed a long time before he appeared with Julian. Would that some one could have taken a picture of us sitting thus in idiotic fashion! Though realising our comical predicament, I dared not laugh, my position was too insecure. Neither my feet nor my ice axe had a firm brace.

As Pat approached, coming down the gully with his ice axe in his right hand, I again shouted instructions. "Keep in the gully; take your axe in your left hand and put your right on the glacier." The ice about breast high would give firm support. As my directions were unheeded, I called again and again: "Keep in the gully: put your right hand on the ice and take your axe in your left." In vain! In vain! He *would* not do as I said. He left the gully for the rocks and then he too sat down a little above Ned. It was exasperating! Pat had said that his parents punished him when he was little because he was so stubborn; evidently not enough.

I had been sitting ten minutes in an awkward and unsafe position, needing only that some one should pass down the gully and from there should reach out his ice axe like a pole. But there was another way. In a tone of disgust I called out, "Throw me the rope," which Julian was carrying. This was done so badly as almost to sweep Ned from his perch, but after tossing it over his head, I took a few steps into safety, passed the end to Ned, and leaving them to their own devices hastened along down.

By this route we crossed a hollow below the glacier, at the bottom of which on our left was the pretty little Santa Ana Lake, fed by streamlets from the ice field over which we had been climbing, the two the real origin of the Marañon or Amazon River, unless another branch, the Nupe, is en-

titled to that honour. This lake¹ is a short distance north of the town of Oyon and hardly 100 miles from the Pacific: so long a journey, 4,000 or 5,000 miles, do these waters flow to reach the Atlantic, although so near the greater ocean. At three o'clock we had left the snow; ascending the other side of the hollow, at 5:30 we reached our camp. I was very tired, evidently not having regained my full strength, though as long as we were on the ice or the dangerous rocks, I had not thought of fatigue. On this account postponing till the next morning hypsometric observations, I forgot them altogether, and so can make the merest guess as to the altitude reached. Estimating from our previous camp, where I had made an observation, this one was at least 15,000 probably 15,500 feet. We had reached a point on the glacier probably 2,500 or 3,000 feet above this. Although not near the highest summit we were not far below it. From the place where we turned back the boys had noticed that we were above one of the peaks of the main ridge. From this I concluded that the loftiest of the three was probably not more than 19,000 or 20,000 feet. If this was, as we supposed, the second highest mountain in this part of the Cordillera, the highest might not be more than 21,000 to 22,000 feet. A guess of this sort, however, with even the base not accurately determined, is of little value. The opinion held by many in the vicinity that in this neighbourhood will yet be found the highest mountain in South America makes the section worthy of investigation. Within ten or fifteen years a railroad will probably connect Cerro de Pasco with Recuay, at the head of the Huailas Valley, passing not many miles from the great peak near Chiquián,

¹ In the *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, Dr. Wilhelm Sievers speaks of visiting the source of the Amazon in 1909 and states that the three lakes, Santa Ana, Caballo Cocha, and Tinquí Cocha, are within an hour's walk in the order named, and that Raimondi was therefore wrong. My information agrees with Raimondi's. These names have evidently been applied by different persons to different lakes. It would be interesting to follow the stream up from Lake Lauricocha and get the best information possible as to the names of the various lakes.

north of the Raura Range, when a triangulation of the higher mountain may easily be made. Meanwhile both that and the peak northeast of Cerro present to the expert mountaineer opportunities for conquests demanding both endurance and skill.

From our experience on this glacier it was obvious that other mountains in the vicinity, which would be likely to present similar conditions, might better at the moment be avoided. The dry season, although in this region not without precipitation, has little in comparison with the wet. Now near its close, with the sun almost overhead, glaciers which might be a mere walk four or five months earlier presented dangers too great to be risked with inexperienced companions.

CHAPTER XXIII

A FIRST ASCENT AT LAST

WITH snow mountains out of the question I determined to try a rock climb. During our journey of a day and a half among peaks of every variety we had observed several which looked possible and attractive for such an ascent. I really wanted to get to the top of something, and among so many heights it seemed that the attainment of one might be within our power. Without this motive for going back by the same route, being now nearly through to the west side of the range, we might have continued to Oyón and returned thence to Yanahuanca by a shorter and easier journey, thus seeing more of the country. But in the hope of yet capturing a mountain-top we went back as we had come.

Breaking camp in fairly good season, we passed during the forenoon the cattle ranch, where we were favoured with a glass of good milk. It was a lonely place to live, amid all those mountains, no other house within miles of these two dwellings. But being near a frequented path across the range, there were daily passers-by, and the people, having little knowledge of the world outside, seemed cheerful and contented with that to which they were accustomed.

Beyond Lake Tinquí Cocha, we avoided the very steep path on which we had descended to our previous camp, by taking a more round about way to the left. At nightfall we pitched our tents on the shore of another lake some miles beyond. Both this day and the next we watched the peaks along the way to find a practicable one of considerable height which afforded a good rock climb. The quest was more difficult than had appeared. The rock faces were often perpendicular; the moderate slopes were covered with snow. Two peaks were considered but abandoned. The

second forenoon, Pablo made a mistake in the road, which Julian luckily discovered before we had gone far. Our return gave us a better view of a rock faced peak which I thought we might be able to ascend. A glacier at the side leading all the way up might serve, if at any time the rocks became too steep. Along the side of this mountain our route lay and at its highest point we paused to make the climb. Although already eleven o'clock, I hoped to gain the summit, at least 2,000 feet above, in time to descend and continue to Lake Caballo Cocha before dark.

Our ascent began with a slope of small stones leading up toward the glacier, safe but tiresome; so after a few moments I left it for some earth and rocks at the right, saying, "I am going this way." Pat, as usual, contrary, remarked that it looked pretty well in a gully at the left. "All right," I said, "Go your own way!" supposing that he would be able to get along, though that side appeared to me more difficult. Julian followed me, while Ned went with Pat. Our way proved very easy, and in a few minutes, reaching the top of the incline near the glacier, we sat down to wait for the boys.

Five minutes passed. Nobody appeared. Ten minutes. Still "nothing doing," as the boys say. I became impatient and began to whistle and shout, but in vain. At length I faintly heard Ned's voice and concluded that they would soon arrive. More minutes passed. No boys! I whistled and called again and again. At last came frantic response. "We are coming as fast as we can! Liable to break our necks! Do you want us to be killed?" There was nothing more to be said. We still waited. After a good half hour's delay, a sad waste of time, the boys appeared. I could have shaken them for not following me. It seems that they had gradually become involved in difficulties where at first they did not wish to retreat, and later dared not, but climbed on up perilous rocks, as it seemed to them, to safety. They needed rest more for their nerves than muscles, but were soon ready to advance.

The rock strata above, I had already perceived, were inclined the wrong way, with a dip of twenty degrees more or less from the horizontal which made the footing rather insecure. It therefore seemed wise to keep along the gully at the edge of the ice, where there were many large loose stones, so arranged that much of the way was here practicable. When it was not, we would ascend the rocks at the left, turning again towards the glacier as soon as convenient. After a brief halt for luncheon, the rocks becoming more difficult, I suggested to the others that they put on the rope whenever they felt inclined. For myself, I said, I felt safer without it. Since I was not strong enough to be of service to them in case one fell, and I, moreover, could go faster unroped and thus reconnoitre ahead as I had been doing, this seemed the wiser course. In accordance with this suggestion the three men soon tied themselves together, Julian and Pat taking the ends with Ned in the middle.

At one point, where a big rock barred the gully, it was easier to go about two rods upon the ice. For a few yards there was a perfectly horizontal bit, narrow, but with a four foot drop only, to the rocks on the upper side, and on the lower a very slight incline for twenty or thirty feet to rocks below. After ten feet of this came a sharp turn to the left up the glacier with the moderate angle of possibly fifteen degrees, where, as the ice was rough, there was not the slightest occasion for slipping, and no danger if one did. Walking over this with perfect ease, I then climbed off up some easy rocks at the left. The others followed, Julian ahead. He made no difficulty anywhere, but Ned balked at the horizontal bit. With some encouragement on my part from where I was standing above, and some fussing on his, Ned advanced; but turning the corner he slipped, and lay sprawling on the ice. Once more he shrieked and swore, filled with unreasoning alarm, for being in the middle of the rope, with Julian sitting securely above and Pat on the rocks at the side, he could not possibly

slide. Even without this protection, he would hardly have slidden on this moderate slope, or if he had, could have gone but a short distance before being checked by rocks below.

I exhorted him to brace up and come on, but when he nervously tried to rise he would slip again. Impatient at his foolishness, I must have moved the upper part of my ice axe a trifle, though without lifting the point. The slight motion sent hurtling down a stone as big as my head. I shouted on the instant, "Look out," and there was time for Ned to have moved head or leg had it been necessary; but he gazed as if paralysed. Luckily the stone passed without touching him, though not far from one foot.

Now, indeed, Ned lost his head completely. He called us all fools and idiots, pronounced the whole idea of mountain climbing insane, and entreated me to turn back at once. I apologised humbly for my inexcusable carelessness, though it was brought on by his folly. As no harm was done it might pass. It would not happen again. I told him that he needn't go on, if he did not wish to. He wasn't helping me but hindering. It looked easy above. I *thought* I could reach the top in half an hour, and I did want to make a new ascent if it was only of a small mountain. But no! that did not suit at all. Having been told at Smelter that they must climb a thousand feet higher than I and having really expected to do so, Ned declared that they would be laughed at if they did not go so high. "Well," I said, "what of that? I wouldn't risk my life for fear some one would laugh at me; that would be silly. There is nothing to be ashamed of. I have had experience and you haven't. I came down here to climb mountains; you didn't, and there is no reason why you should take any chances." Pat was sensible enough to see the logic of my position and to agree to their stopping there, but Ned said, "No! If you go we must go too, and we shall all endanger our lives on account of your insane ambition."

For a moment I hesitated. I felt that in Ned's nervous

condition, he might possibly slip elsewhere, and cause the death of all three; if so I might be blamed for the accident. But again I reflected that mountain climbing was the purpose of my expedition. I was quite sure I could reach the top. If the men went on against my advice, it was their own fault if they were killed; so with a parting injunction to them to stay where they were, I turned my back and left them to their fate, saying that *I* was going to the top.

Now my progress was rapid and I greatly enjoyed the rock climb, always preferring this to snow. In my ascent I got farther and farther away from the glacier, at length reaching a platform, perhaps thirty feet square, at the top of the left hand vertical face of the mountain, and about thirty feet below what I hoped might prove the real summit. But here was a perpendicular wall. Could I climb it? I perceived at once that though the face of the wall was smooth there was a ledge nearly a foot wide, beginning about as high as my head, which gradually led up to the right. Then convenient breaks or steps conducted to another platform just below the summit. The tug would be to get up to the first ledge. I have too little muscle to draw myself up with my hands, and the face of the wall was too smooth to afford the slightest foothold. Luckily a big rock breast high stood on the platform close to the wall. Eagerly placing my foot in the crack I found it, at the height of my knee, narrow enough to hold.

Laying my ice axe on the platform and divesting myself of the little leather bag which hung at my belt, with some effort, after placing one foot in the crack, I was able to get my body on the rock and wriggle along till I could stand upright. From here the climb was easy, just a walk along the ledge and up the steps. In a moment I was on the next platform, a moment more, on the topmost rock which I rejoiced to find was the real summit, contrary to its appearance from below; the glacier ending on the other side about twenty feet beneath the highest rock.

Triumph at last! It was not by any means the loftiest peak in South America, but it was the first ascent of a mountain higher than Mont Blanc, the monarch of the Alps, and I had done it alone. Surely it was better than nothing. I drew a long breath and for a moment enjoyed my triumph, truly, happier far than when two years later I reached the summit of the great Huascarán. Next I surveyed the prospect. To the southeast lay the plateau and the hills near Smelter. Elsewhere in three directions were mountains innumerable of greater elevation than the Alps, most of them bearing glaciers and snow fields, yet showing rugged rough faces. Here and there among these, nestled beautiful little lakes. It was a glorious prospect to one who appreciates the lonely grandeur of nature; the stern forbidding aspect some might call it. To me these stately mountains are far more alluring than the treacherous, restless sea. They will not swallow you up, nor crush you with stones or avalanches, if you take them in the right mood and season. They are calm, tranquil, uplifting. If one might sit awhile and gaze!

A few minutes only could I stay. Shouting then repeatedly at the top of my lungs I at length heard a response. "I am on the top," I cried, "and coming down. Don't try to come up! I don't believe you can. I will soon be back. Are you going to try? don't!" Hearing no answer I started downwards. If they were coming up, of course I should wait to take some photographs, which, as it was, I must miss, since Julian was carrying my camera.

At the end of the ledge I sat down and dropped off six feet to the platform. Picking up bag and ice axe I joyfully continued down. When I thought I might be near the boys I shouted. To my dismay the answer came from above. "What!" I cried. "Have you gone up after all?" They shouted Yes, that they were near the top. They had kept close to the glacier instead of branching off to the left, so that I had not seen them. Great was my disgust! Had I known they were coming, I should have been resting and

enjoying the prospect. With the idea of going up again I began to realise that I was tired. Yet if they were there with the camera, I must have my picture taken on the summit and must take other views too. Reluctantly I turned to pursue again the upward way. When I reached the lower platform, the boys were above. In my fatigue, the excitement over, I hated again to climb that wall. But it must be done, and dropping bag and ice axe, I was soon on the upper platform, where I found the boys waiting below the summit.

"What are you doing here?" I inquired. "Did you go to the very top?" they rejoined. "Of course I did," I replied. "But how did you get there?" "Right around this corner, that is easy," I said. "Whew!" they exclaimed. "Let's see you do it." Responding, "That is nothing!" I stepped around and in a moment appeared on the top. "Well," they said, "we will come up, but not that way." So they did some difficult gymnastics, altogether beyond my power, shinning up, so to speak, the almost straight wall from the upper platform, where, if they slipped back, there was ample room for them to land. My way was vastly easier, merely to step around a corner of the rock which came within an inch or so of the edge of the wall leading down to the lower platform. "Pooh!" I said, after we had all returned to the platform. "If you think that is anything, just stepping around a corner, look and see where I came up." They approached the edge of the wall, but after a hasty peep over, retreated ten feet. "No-o-o!" they said. They didn't like the prospect. As for going down that way they did not consider it for a second. I was obliged to, on account of my bag and ice axe below. So after boiling my thermometer (the temperature, $84^{\circ}.4$ Centigrade, probably indicating a height of something over 16,000 feet), and taking photographs, we separated to return as we had come. Clouds had gathered meanwhile, and mist, so that no photographs of the view had been possible. It began to snow in little round globules. Snow, or rain, if it froze on the rocks,



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Miss Peck at summit of mountain



Mountain ascended, October 21, 1908

U. S. G. P.

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would render our descent extremely perilous, especially on these rocks sloping the wrong way. Urging the boys to hasten as much as was compatible with the utmost care, I set out myself. Luckily the snow ceased before doing real harm.

Near the place where our routes joined, the men being still far above, I called to them that I would hurry down and tell Pablo to get the mules ready. On reaching the foot of the glacier, in my desire to avoid the place where Pat and Ned had come up, I went a little too far along the ridge, though unaware of this at the time. After descending a short distance, I perceived that this was not where I had ascended, but I continued until I reached a jumping-off place. I was on one of those dangerous slopes of smooth rock, more or less covered with small stones. I went this way and that, at first to find a place to get down, then either up or down. After considerable search I became nervous. It would be ignominious indeed, if, after making a real first ascent, I should be killed near the foot of the mountain on this miserable stony slope. I must sit down and collect myself. Again I tried, but saw no way. It seemed absurd, but I was really nervous. I sat down a while longer, several minutes, realising that I was very tired. After this rest I felt better, and coming now to a spot where I had been before, it did not look so dangerous. By cutting into a hard earth slope, and at other points patting the little stones so as to afford a more secure footing, I was able to get out of danger, back to the top of the slope. Now I saw Julian and the boys coming in the distance, much astonished to find me there. After explaining how I had wasted nearly an hour, we turned in the proper place, a little farther up, walking down in ten minutes to the grass patch where we had left Pablo.

Having seen us coming, he was collecting the animals. As rapidly as possible the mules were laden. In the hope of reaching our first camp within an hour or so, we set out at ten minutes of six. Beyond a *col* we made the long traverse,

luckily before dark, coming then to a lake, but not Caballo Cocha. Presently it began to snow, and we suffered from the cold. It grew dark. No longer daring to ride on the rough trail we stumbled along on foot. It was certainly unpleasant and Ned began to fuss. He said we should have stopped before and at every open space suggested a halt. Pablo came to inquire if we should go on. I said "Yes, if it is safe to do so." Later he came again. I then explained that, if possible, I wished to reach our old camping ground that night as from there we should have a sufficiently long journey to reach Yanahuanca the next day; I added that he might do as he thought best, and he kept on.

The snow turned into rain. Our feet were wet through, but I had an umbrella. I have often found one useful on horseback rides and always carry one on my expeditions. The boys with water-proof coats were sufficiently well provided. It was dismal enough, we were all tired, we seemed plodding on for ages, but at last the goal was reached. For me followed the most tedious moments. Considering that the four men were able to put up the big tent without my assistance, I stood at a little distance motionless, it seemed a long, long time, until I saw the lantern shining through the canvas. Happy was I to sink down luxuriously upon my sleeping bag in the corner, and it was only half past seven.

The long grass wet with snow and rain made it out of the question for the indians to sleep in the open. The boys seeming to prefer my company to theirs, I told the men that they could have my tent and I would stay in the large one, which, affording plenty of room to move, I found much more comfortable. It took some time to unpack, to send for water, to get the stoves going. Ned meanwhile fretted over his discomfort, in spite of my reminder that we had great reason to be thankful that the storm did not come on earlier when we were on the mountain top; else we might then have been lying at its foot, instead of being safe and

sound in our tent. Both the boys expressed fears of pneumonia, which I said was nonsense.

As soon as the stove was going, I requested a search for the small whiskey bottle, which, not yet uncorked, had been brought for such emergencies. Not forgetting Julian and Pablo, we took a draught all around of hot whiskey and water. What a transformation! At once Ned became more than his usual cheery, amiable self, and preparations for supper proceeded with great alacrity and good humour. We had more fun for the next hour than in all the rest of the journey. By nine o'clock we got into our sleeping bags and slumbered peacefully till daylight.

In the morning it was cloudy, the ground still covered with snow. From the houses near by, some men and boys gathered to observe the strangers, our preparations for breakfast, etc., but when we closed the tent door to cat, they took the hint and departed. After all was ready for the journey, the boys insisted upon making on the shore of the lake an elaborate toilet, which I deferred until our arrival at Yanahuanca.

At first we proceeded smartly over a nearly level road, but soon, alas! it began to snow again, and in chilly discomfort we continued for hours. At length escaping from the region of snows we halted for luncheon in a spot where we found good grazing for the mules. The bright sunshiny afternoon made delightful our ride down into the cañon of Yanahuanca. Up again, in good season we came to the house of the hospitable Borics family who greeted us warmly, insisting that we should remain with them over the morrow for a needed and welcome rest.

Discovering that the backs of our mules were in a terrible condition we let one animal go free, gave light loads to two others, and obtained a small native horse to carry the rest. Thus we set out in good season on Wednesday for Smelter, the smoke from which we perceived soon after luncheon. On account of the animals, compelled to proceed slowly, sunset found us still a considerable distance from our

destination. The boys from their horseback rides were so familiar with the country about Smelter, that I supposed they could find the way even after dark, and I therefore urged that we press on, instead of turning aside to Vinchus Cancha as Ned wished. In the darkness, however, we became involved in difficulties. We knew there was a river to cross, but this was a ditch confronting us, black, wide, and deep. We rode on its bank to the left till we came to a sharp turn, still to the left, another right angular turn, again to the left, till at last we found a way out. We had previously rejoiced to see in the distant foreground two or three electric lights towards which we headed till they disappeared from view. It wasn't Smelter, for there were a hundred, but either Vinchus Cancha, which should be on our left, or Fernandini's at the right of the Smelter a mile or two below. It ultimately proved to be the latter as I had surmised.

We were so cold and tired, the way seemed so uncertain, that at last I proposed camping where we were, though we were all hungry, and there was little left to eat; but the boys preferred to go on and I was willing. When at length we reached the river, there was some trouble in finding the ford, our last difficulty, for on climbing to the top of the adjacent *col* we perceived that we were all right; there were the hundred lights of Smelter on the opposite side of the valley, distant, yet comparatively near. Joyfully we rode down into the hollow, across, and up the other side. A little after ten, we clattered up to the doorway. Mr. Klepetko rushed out to greet us and we were soon under cover. Indeed we were ready for the eleven o'clock supper of hot bacon, eggs, and potatoes at the restaurant where the night shift is regularly supplied; and we were all glad we had not stopped anywhere on the way. A porcelain bath tub, a good bed, were highly appreciated, and not to get up the next morning until I felt inclined. After such an expedition, the amenities of civilised life are doubly appreciated. We had been gone twelve days. I had said,

from ten days to two weeks, but the people were beginning to feel anxious about us.

We had visited a little known region including the source of the Amazon, made one first ascent, and had seen a beautiful section of rugged mountains, which afford any number of interesting climbs, most of them not too high to come within the range of enjoyment. Above 18,000 feet, I think few people have any real pleasure; the majority may be satisfied with 15,000. Early in the season, May or June, most of the snow mountains could easily be ascended by experienced climbers, perhaps by others; the rock mountains also, except a few pinnacles which would always be dangerous. The highest mountain at the northwest, and the one at the northeast, I should not care to attempt without Swiss guides. It would be interesting to determine their exact height, to ascertain if either equals or surpasses Aconcagua.

When the boys were asked how they liked the trip, they replied that they had had a fine time; they would not have missed it for anything, now they had reached home in safety; but they had had all the mountain climbing they wanted: they wouldn't do it again for a thousand dollars. To Mr. Case, Pat confidentially remarked, "She can climb," and reported that Julian had declared, "The Señorita is neither a man nor a woman: she is a cat." Which reminded me of the absurd and exaggerated statement of an Adirondack guide who accompanied me on my very first ascent, a little mountain where I had gone over a slash of fallen trees: "She went where a chipmunk couldn't go." However exaggerated his remark, it may perhaps serve to indicate that sometimes mountain climbers, like poets, may be born not made.

CHAPTER XXIV

TO YUNGAY IN 1906

ON my return to New York in December, 1906, I was happy to learn that the account of my efforts to scale the great Huascarán was already published in the current *Harper's*: for as the altitude attained was hardly greater than in 1904, I had had grave doubts whether the story of my adventures would be deemed worth while. After this failure, my hope of inducing any one to take further interest in the matter had dwindled almost to the vanishing point. What then was my gratification, on calling the afternoon of my arrival at the office of the *Magazine* to be greeted, after a cordial handshake, with, "Well, are you going again?"

Hope promptly reviving, I cheerfully responded, "I should like to, but there isn't a bit of use without Swiss guides." "What will they cost?" "I think it can be done for \$8,000." A further interview and the strongest possible presentation of the case failed, however, to convince the powers that ruled that that sum in advance would be a judicious outlay. A portion, nevertheless, was promised. With the backing of our oldest monthly magazine, I thought surely the rest could be secured in time to set out again in the spring of 1907, but my efforts came to naught. The following season was alike a succession of blasted hopes, till finally on the afternoon of the day fixed upon as the last possible for the inauguration of the enterprise, already a month later than it should have been, when hope was utterly abandoned, a special delivery letter informed me that the money would be forthcoming.

I really did jump up and down, for the first time since I was a little girl. I don't remember ever doing so then. I was very dignified from my youth up. But no time was

wasted. That evening a cable was dispatched to the Seilers to send over Swiss guides; the money for them, also by cable, went the day following. Preparations here moved forward. A visit to Washington, with a call on President Roosevelt, gained his favourable interest, as I felt sure it would; since he was an honorary member of our Alpine Club, and by temperament would be appreciative of a real athletic and sporting event. Moreover, if not quite committed to Woman Suffrage, he was not of the sort to decry woman's ability, or when it had been proved, to throw stumbling blocks in her way. And his friendly interest proved of real service.

After several weeks of strenuous labour, on Monday, June 29, accompanied by the two Swiss guides, Rudolf Taugwalder, and Gabriel Zumtaugwald, who had arrived the preceding Saturday from their homes in Zermatt, I sailed for the fourth time to South America, with no doubt of my final success in the endeavour to reach what I hoped would prove the highest point on this hemisphere. A perfect wreck was I, after months of labour and worry, several weeks of rush, and not a wink of sleep the night before. At noon it seemed as if I *could* not make ready all the things that I must take, and arrange those that I was to leave, in time to embark on our ship sailing at three; but I *must* do the former, and take my chances as to what became of the latter. Thanks to the good people of the Clarendon Hotel I found those all right on my return. Under the circumstances, the snap-shot taken of me on the deck of the vessel, especially when enlarged by the newspapers, made me look about a hundred years old; but trifles like that and some that are worse must be endured with equanimity.

The voyage to the Isthmus on the *Alliança*, which had been enlarged and remodelled since I sailed on that steamer in 1904, was unusually agreeable. The Panama employees on board seemed of a higher class than in 1906, and it was a pleasure to have Mrs. Goethals as a near neighbour. The Fourth of July was celebrated by the young men with games,

the two Swiss guides adding a valuable element of strength to the Tug of War. With my usual fair weather, we arrived at Christobal in the afternoon of Monday, July 6, whence a special train carried us immediately across the Isthmus. Our brief passing glimpse showed a complete transformation in five years from the beautiful noisome wilderness to a busy hive of industry, with pretty, happy, and healthy homes.

Good luck was now attending. For the first time a ship was to sail south on the morrow, and we immediately went on board. Tuesday afternoon we left the dock, and Wednesday morning at daybreak we were under way. Our ship making good time anchored off Puná by nine o'clock Saturday morning and arrived at Guayaquil by one. Here it seemed necessary that we should be fumigated, for what reason it would be difficult to tell, unless to give some people employment and cause the ship delay. But Sunday morning to our great delight they went to work on the cargo. The weather was fine and cool and after a second fumigation, we got away Monday afternoon, in time to reach Puná before dark and Paita the next morning.

A new arrangement gave me much joy. It was possible now to land at the northern ports of Peru, without first going to Callao; so from Paita I telegraphed to Mr. Bryson that I hoped to arrive in Samanco about Friday or Saturday. At Etén on Wednesday, I learned that the weekly *caletero* boat, to which we might change at this port or at Salaverry, had sailed south on Monday, that the next of these, the *Aconcagua*, was due on Friday, so again I telegraphed that we might arrive on Sunday. Cheapness of telegraphic communication is one of the unexpected advantages to be found in Peru. The lines are owned by the Government which has fixed the same price for messages all over the country, whatever distance they are sent: a low price, too, only twenty cents of our money for ten words which include address and signature, and two cents for each additional word. This puts to shame the exorbitant charges

in the United States, especially when the difficulties of those mountainous regions are considered and the scarcity of the population. This cheapness is a great incentive to the use of telegraphic communication, and an immense benefit to the country, since the postal facilities are as yet painfully limited and of the slowest operation.

At Salaverry on Friday we went ashore, thence taking the train for Trujillo, ten miles distant, as Salaverry is a port merely with few houses and no hotels, while Trujillo is a considerable city. Its hotel, however, is not much to boast of, giving no meals; for these we went to a near-by restaurant. Here I was surprised on my second visit to be addressed in English by a nice looking young man who proved to be an American. He afterwards gave me a thrilling story of various adventures, experienced by him during the two years he had spent in South America. In this land adventures may be had for the seeking, in other fields than those of mountain climbing, fields to my mind far less attractive. Snakes, wild beasts, savages, starvation, and beri beri are not among the things which appeal to me.

As my own story may be disappointing to many who had believed that such experiences must have fallen to my lot, let me repair the omission on my part, by a brief reference to the adventures of my fellow-countryman. Thus may be learned the possibilities for those who care to emulate him.

After a few months at Panama, Mr. Smith was tempted to take part in some railway construction on the west coast of Colombia. Much bitter feeling was here manifest on the part of the residents against the two men from the United States, a natural if not logical result of the violent separation of Panama from its mother country. The natives were always saying that as the Americans stole Panama, *they* had a right to steal from them. One night the Americans' residence was attacked, but with his handy Winchester, the Superintendent of the Road killed three men, when the rest fled.

My friend, later proceeding to Guayaquil, there embarked

on a small ship for Panama. Getting into a strong ocean current, the ship for three months sailed round and round the Galápagos Islands, till, provisions being nearly exhausted, he with some others in a small boat escaped to Chatham Island, and thence was carried back to Guayaquil.

Next the young man joined an acquaintance in Quito in a rubber venture, in these days an attractive speculation. The two, accompanied by thirty-five stalwart porters with a good supply of provisions, went up over the mountain pass, about 12,000 feet high, and down the east side into the forest; for almost anywhere in the tropics on the lower east slope of the Andes, rubber trees may be found. His story of how they went on for weeks, with the men dying from beri beri, a dreadful disease of the tropics, until their provisions were nearly exhausted, and then sent seven indians back to bring utensils and additional supplies, while they waited in the forest with the eight porters remaining from the original thirty-five, of how all these died except one, and how then the three men who were left started on their return, and, suffering from hunger and disease, made their way until at length, after four days without food, they would have perished from starvation, had they not providentially found a bag of meal in one of the old camps, and in spite of this would never have survived to reach safety, had they not, when food was again gone and they were hardly able to stand, been met by a party of rescuers sent by a kindly Ecuadorean, was one of terrible suffering. Both men were so thin as to be reduced to half their normal weight, that of my friend, who was five feet ten inches tall, to seventy-eight pounds. He now had enough of the rubber industry and was enjoying a quiet life in Trujillo giving lessons in English. It may be said, however, that their sufferings, apart from illness, possibly even that, were due to gross mismanagement, which everywhere produces woful consequences, if not always as disastrous as here.

The *caletero* boat arriving at Salaverry Tuesday, on Wednesday, July 22, deposited us at the familiar port of

Samanco. Trials at once began. Horses to take us to the sugar plantation were lacking, but in response to a telephone message they appeared the day following. At San Jacinto I was grieved to learn that the entire Bryson family was expected on the morrow, en route to Samanco, where they were to spend some weeks for their health, especially for the benefit of the Señorita Inés. This was a sad blow; both because I greatly enjoyed their society and hospitality in Yungay, and because they were of much practical service as interpreters and ready to assist me in whatever way they could. As they were needing all their horses for their own transport and that of their luggage, I must await their coming to obtain animals for our journey, which, for the sake of a passing visit with them, I was happy to do.

Friday evening the whole family arrived, coming by train from Motorcachi. All the way from Cajabamba had they journeyed that day, parents, children, governess, maids, men-servants, baggage, a goodly retinue indeed. It was a merry party that finally sat down to dinner about half past nine; an elaborate meal of excellent quality, but too much for grown people, still more for children, after so long and tiresome a journey. The English governess had had a particularly trying time, being one of those numerous persons who are unable to control their foolish fears. If one is timid and can avoid doing what he dreads, he may be sensible; but if compelled to do it, why not make the best of it, instead of conjuring up all sorts of frightful and foolish visions? Obligated to go over the road, and aware that other people did so every day, and that no one had ever rolled down the slope, or been injured in any way, it seemed absurd to torture one's-self over the possibility, instead of admiring the romantic scenery.

The Brysons were staying at San Jacinto over the Peruvian Independence Day, July 26, here celebrated with especial enthusiasm, because the newly elected President, Señor Leguia, was part owner of the estate. There were to be elaborate fire-works Saturday evening, including a number

of set pieces. It would have been a pleasure to remain, but the season was already so advanced that I was anxious to get to Yungay and my mountain at the earliest possible moment. Accordingly with a man to attend us, we set out for Moro about four on Saturday afternoon. When the journey was half completed, our pilot turned back leaving us to find our own way, which with some misgivings I did, arriving at the Gadéas soon after dark. It was always a pleasure to greet these kindly old people, and I regretted that time pressed and that in the early morning we must hasten onward.

A guide having accompanied us thence, until I felt confident that there was no possibility of going astray, we three pursued alone the now to me familiar journey. At Hornillos, as always, we paused for rest and to give the animals food, thence following the route of 1906 up the southern fork of the cañon. On a broad level spot the other side of the stream, I was surprised to see a considerable new building of adobe or stone, neat in appearance and surroundings; apparently, though we had no time to investigate, a very decent place to break the journey, and if necessary to remain over night.

As always, it was a long fatiguing day, though not so bad as in 1906: perhaps because I felt a greater responsibility in now myself being guide to the Swiss, who were not used to horseback riding. They seemed fully as tired as I, though not so cold. I had warned them that the sudden variation in altitude of 11,000 feet brought a great change in temperature, and that mittens and warmer clothing would be desirable on the latter part of the journey. Even with these I was always chilled through before arriving; but the guides did not seem to mind the change in the least. They insisted that their uncovered hands were warm enough. It may have been for this reason that when I warned them to guard against the severer cold on Huascarán, they thought this, too, might be merely an exaggerated impression on my

part, owing to my more sensitive condition, and that it would not greatly affect their more hardened frames.

Although all of the Brysons were absent, the house at Cajabamba was open as usual, and soon there was a good fire blazing in the parlour grate and presently a dinner. As on previous occasions, in spite of all possible precautions, our baggage from San Jacinto did not appear when it should, so that our intended stay on the Black Cordillera to become accustomed to the altitude was prolonged beyond our desires. Our only consolation for the delay was that it afforded opportunity for several walks in which the Swiss had their first glimpse of the White Cordillera and were duly impressed with the imposing appearance of Huascarán.

At last, on the slow moving burros, the baggage arrived, and we could proceed to Yungay. In the absence of the genial proprietor of Cajabamba and of many of the household, being unable to procure escort to the top of the pass, I made shift for myself. At first the way was plain, but by and by we reached a doubtful point. Straight on over the brown hills went one path, while another, perhaps better, turned sharply to the right, not at all in the proper direction. Two or three figures ahead were pursuing their way by the former route. Concluding that very likely both paths united above, being unaware that there was another place to which a road might lead, I followed the straight path which I supposed was the shorter. After a while the track became less distinct; the men in front were going far to the left, too far I knew for the pass, so I decided to ride directly to the top of the slope, where I perceived that we were too far north. A short ride in a southerly direction over the rounded grassy hilltops brought us to the cross at the head of the pass. We had lost more than half an hour, but paused for a few photographs before descending by the familiar road to the Huailas Valley. When we reached the village of Paso Libre, as it was well towards dark, I thought I should feel safer with a guide. A wizened old man, agreeing for two soles to conduct our party, trotted on ahead

with great endurance, till he brought us through the darkness to the patio of the Vinatéas, who had been expecting us for some days. As my old quarters were now occupied by the Señora Handabaka with her two-months-old infant, I was installed in a room at another corner of the patio. On an upper floor with an entrance from the street, comfortable quarters were provided for the Swiss guides, who had their meals at the table with us.

It was desirable to make our stay at this altitude, 4,000 feet below Cajabamba, as short as possible, that we might not lose the benefit of the time passed above; further that our ascent be accomplished before the condition of the mountain grew worse. On the morrow, therefore, I sought again the kindly offices of Señor Ildefonso Jaramillo, desiring him to procure as porters for the expedition the most stalwart and courageous indians obtainable. As Sir Martin Conway had made his South American climbs accompanied above the snow line by two Swiss guides only, I thought that two porters, in addition to the Swiss guides, might suffice for me. With the smaller number, I trusted there would be less danger of insurrection, and a better chance for faithful service. Accordingly it was so arranged.

Unfortunately, in the midst of multifarious other matters, one important item in my preparations, although previously planned for, had been neglected until too late: the special equipment for the indians, shoes and underwear such as I had brought in 1906. By Mrs. Bryson's orders, I had procured from the mine at Colquipocro, two good flannel shirts and two pairs of shoes, which, with stockings and one or two other articles including mittens left over from 1906, provided most of the essentials for the two indians. Under-garments to go with the woollen shirts were, however, lacking. The best I could do was to purchase at Cajabamba some bright pink cotton-flannel, from which I proceeded to cut, as well as an inexperienced patternless woman might, and hastily sew some *unmentionables* for the benefit of the two porters, no heavy, woollen garments of any sort being on sale in

Yungay. Sugar-cubes and raisins, which I had intended to bring, had likewise been omitted: neither could be found here; instead of the former I bought some candy balls after the style of lemon drops, called by them caramels. Of coca, I laid in a good store. In place of much canned meat, we carried a cooked chicken and a piece of lamb.

Immediately upon my arrival, I had telegraphed to Ramos in Carhuaz, my most efficient helper in 1906, who had then declared that he would gladly assist in another attempt upon the mountain. As in his reply he requested ten pounds for his services the negotiations abruptly ended. In contrast, a young man of the town, who two years before, when he might have been useful, had desired ten pounds for his company, now when he would be of no service, but merely a supernumerary, was willing and anxious to go for nothing.

CHAPTER XXV

FIFTH ATTEMPT ON HUASCARAN

ON Thursday, August sixth, at half past two, escorted by Señor Jaramillo, the guides and I set out on horseback for the mine, Matarao, whither half a dozen indians had departed with the baggage an hour earlier. A new administrador, Señor Campos, with his wife there gave us cordial greeting and later a dinner in four courses, despite the primitive surroundings, furnishings, and supplies. The floor was very uneven and one of the men sat on a wooden box. The first course of our dinner was potato soup, the second, meat and rice, the third, indian meal porridge, the last a cup of tea, unless some *aguardiente*, a fine brandy made from grapes, proffered by Señor Jaramillo be termed a fifth. At half past seven the indians arrived with everything intact; at half past eight we retired, in confidence that at last all was going well.

Friday morning we were up by six, I made observations, and after a breakfast of bread and tea, at half past seven we began our ascent to the snow line. As Señor Jaramillo was returning with the horses to Yungay, we walked the entire distance. Although I carried nothing, the climb seemed hard work, and frequent pauses were necessary. It was a beautifully clear morning, as most of the days and mornings are. There was a fine view of the hills below, the brown grass interspersed with a few trees, with green alfalfa fields and other cultivated lands; the familiar black crags and the white snow peaks above preserved their perpetual charm. Instead of turning to the right in the proper place and going up the gully, the indians followed the ridge all the way, with the result that when we paused for luncheon at eleven we had no water. During the forenoon's walk I felt some

slight discomfort, warning me to a slower gait, and Gabriel afterwards remarked that I looked rather white during our midday halt. Later in the day, however, according to my custom, toiling up over the steep rocks, I held my own with the rest; while Gabriel, carrying my camera only, himself confessed to unwonted fatigue and fell back to the rear.

One of the chief difficulties in a woman's undertaking an expedition of this nature is that every man believes he knows better what should be done than she. The indians are not aggressive and, unless through indolence or fear, are likely to do as they are bidden; though even these, in descending below the snow, urged their own notions of the proper route, in opposition to my experience. The crazy man, E—, of 1906, was confident that two days on the snow supplied him with complete and superior knowledge; while my companions in Bolivia, both scientific and otherwise, alike believed that they could give me points in all matters, whatever my experience and their lack. It is not strange, therefore, that, in common with my previous assistants, the Swiss guides who had come over for this purpose and were well skilled in their calling should conclude that my three abortive efforts on this side of the mountain counted for nothing in comparison with their own judgment. When I suggested a certain line of ascent, a certain place found best for the first camp, they said, especially Rudolf, the elder, "Oh, yes! but then glaciers change every season, as well as from day to day. Better this ridge!" As the matter was not vital I did not insist, with the result that we encamped at last too far south, at a higher point than was desirable, where no brush could be gathered for fire, and whence we were obliged next day to make a tiresome and unnecessary traverse.

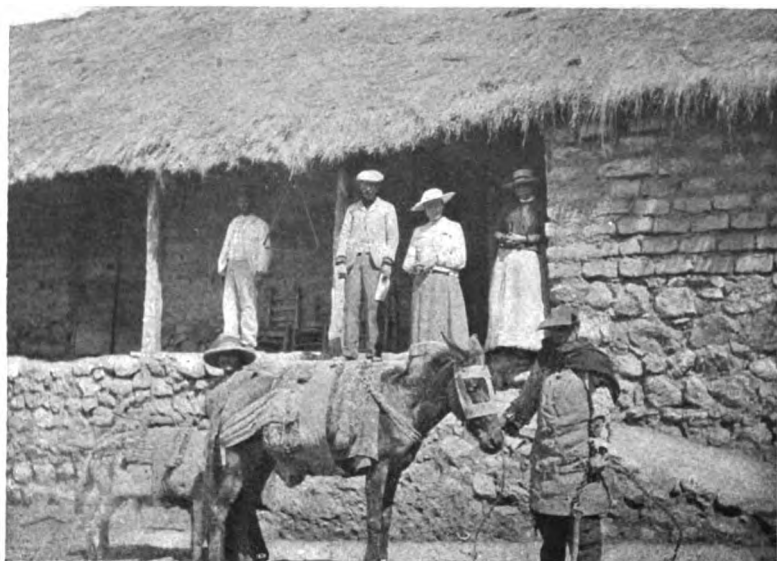
At half past four the extra porters, who had come so far to relieve as long as possible the others, were dismissed to return to the mine; but of their own accord they remained to witness the setting up of the tent and our further preparations for the night. As it was moonlight they could still have found their way down, but appearing to enjoy the

novelty of the occasion, in spite of a half hour's snow storm, which about dark descended upon us, they held their own and crowded together among the rocks cheerfully spent the night, if one might judge from their manner when they bade us good-bye in the morning.

By the time supper had been prepared and eaten it was dark, and all were ready for repose to fit us for the greater labours of the morrow; the two indians, Domingo and Anacreo, sharing our quarters with us. This year I had brought a single tent of silk about nine feet square, designed to accommodate four or five persons, a more satisfactory arrangement than in 1906, when I had the little tent, since I was able to move about inside, could better look after the men, and was much warmer.

Although our baggage had been confined to the narrowest possible limits, it still proved more than the indians and the two guides were able to carry. Accordingly, after a light breakfast, about quarter past seven, Rudolf with the two porters set out with a part of the baggage, leaving Gabriel and me to follow with what we could carry, after packing up tent, sleeping bag, etc., for which the others would return. An hour later, we pursued the track of the others in a long traverse to the north with a slight upward incline. They, meanwhile, coming back to camp by a lower route, presently rejoined us above, where we awaited them at the place of deposit of the first instalment of baggage.

So soon now came the first symptom of trouble, Rudolf declaring that he did not engage as a porter and did not propose to double his route or to carry heavy burdens. Deeming it wiser to defer comment for the moment, I later found it unnecessary; but from this incident, it may be apparent that although Rudolf was the sufferer, he was certainly *not* the hero of the expedition, suffering and heroism not being the synonymous terms that unthinking persons often seem disposed to make them. After a luncheon of bread, meat, chocolate, and cold tea, Gabriel and the porters



Mine, Matarao: Señor Campos and wife



Camp at edge of glacier, Mt. Huascarán

UNIVERSITY OF MICHIGAN

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went on while Taugwalder (Rudolf) and I advanced a little later. Arriving at the place of deposit, we two set up the tent and prepared supper, while Gabriel and the indians returned for the remainder of the baggage. At meal-time Gabriel seemed pretty tired; the pea soup which I had prepared he refused to eat on the ground that it was too thick; I therefore added snow to make it more to his liking. I am rather fussy myself on occasion, but on such expeditions it seems desirable to eat what is nourishing even if not altogether to one's taste. The soup had been made thicker than usual to obtain more nutriment without wasting water. We now finished the chicken largely dispatched the day before, our diet at noon having been varied with canned corned beef.

Our first camp on the snow was the scene of fresh trouble. After taking before dark a picture of the great saddle before us with its immense and perpendicular ice walls, I was proceeding to insert another film in my camera, when what was my horror to discover that none of the eight rolls brought were of the right size for the instrument. On my previous expeditions I had had but a single photographic apparatus. This time, in the hope of obtaining especially fine pictures, I had brought three, with some films 4x5 and others 5x4. The cases of the rolls being similar, I had hastily taken up those that came first without a thought that there were two sizes. What to do? Return myself for others or send for them? We had made a good start; the way down and back was long and weary. After supper I broached the matter to the indians, promising ten soles extra to the one who would perform the errand. We would await his return, meanwhile getting accustomed to the altitude, which would be no disadvantage. Domingo volunteered to go and Gabriel to accompany him to the rocks. Accordingly, in the best Spanish I could muster, I wrote a note asking for the larger size of films and sent a sample. I explained precisely where the rolls were, and requested besides, several

additional articles. A few words in English were added, as Señor Handabaka had a slight acquaintance with that language.

In the early hours of Sunday I made coca tea, our usual morning drink. By half past six the two men had departed, and I could betake myself again to slumber, from which the men remaining had not been aroused. The unexpected rest was welcome; for not only had the preceding days been arduous, but the night had been full of disquiet, if not of terror. Our little tent, fastened by iron spikes driven into the snow, was weighted down by five substantial persons. The door was tied with various tapes, but the wind was high. Flap, flap went sides and door. The Spirit of the Mountain seemed to have risen in disgust to drive forth these puny mortals. Fiercer grew the blast. Ever louder howled the tempest, or so it seemed within, though the night was clear and cold. Fearfully I wondered if the canvas would stand the strain or be torn to worthless shreds. Long and sleepless had been the night in the roar of wind and shriek of canvas, though I had not suffered from the cold. A quiet morning nap was therefore well appreciated.

About half past ten Gabriel returned, having improved the opportunity of his descent to the rocks to move the few things which had been left behind where we could more easily secure them on our way down. Meanwhile I had begun to melt snow for soup, its preparation for some unaccountable reason consuming three hours instead of the usual two. This tedious operation always fell to my lot. Snow when melted shrinks to one-third of its bulk. Though our kerosene stove was of the latest pattern, at this altitude its gas flame afforded little heat. My labour went on at night when the others had gone to rest. In the morning, too, I must perform like service. Imagine me then, early and late, sitting in or on my sleeping bag, coaxing the stove to melt snow for soup and tea! While the others were resting or were bringing the second instalment of baggage, I sat by the hour, cramped and motionless, save for pumping a little pressure

to the gas or adding chunks of snow to the kettle. How that stove would smoke, blackening the kettle and everything around; how we waited hour by hour for our soup at night, and after the others had gone to sleep, how I still sat melting snow for the water bottle next day! My work, though less arduous than the men's, continuing through a greater number of hours, was a severe tax upon my strength, obviously much less than theirs to begin with.

In the afternoon, at my suggestion, Rudolf rather reluctantly set out with the second porter, Anacreo, to reconnoitre and ascertain if possible, whether it were better to pursue our way straight up the middle of the saddle or pass to the left of one of the great rocks which, at the foot of each peak, on either side, guard the portal. On his return, after an hour's absence, Rudolf complained of not feeling well. Gabriel, too, was tired, so, as a change in my labours, I assisted in banking snow around the tent, a measure promoting warmth and safety. After an early supper we sought our beds, and the more quiet night permitted slumber.

Expecting Domingo to return by the middle of Monday afternoon, I had decided on that day to move our camp a little higher, as he would be able to follow a short distance. But in the morning came a genuine calamity. Rudolf declared himself really ill. Accordingly, while Gabriel and Anacreo went forward with a portion of the baggage, I tried the efficacy of belladonna for *soroche*, and made gruel of quinoa meal, in Bolivia regarded as a panacea. On the return of the two men, Rudolf asserted that he was still unable to proceed. I suggested that other climbers, such as Whymper and his guides, who on Chimborazo were afflicted with *soroche* at about the same altitude, had recovered within a day or two, and offered to await his convalescence; this did not seem to suit. He said he would remain there until the arrival of Domingo and then determine whether to accompany him upward or make the best of his way down. The rest of us accordingly went on.

Domingo, the faithful, after making the tremendous jour-

ney to Yungay, nearly 8,000 feet below, and several miles to one side, was back again at the old camp by three o'clock Monday afternoon, when Rudolf, feeling unable to ascend even a short distance, went slowly down the mountain, improving in health as he descended, and arriving in Yungay the following morning.

Gabriel meanwhile declared that he would do his best to lead me to the top, realising that together with the additional labour he would have an especial personal triumph, if he alone of the two guides could enable me to achieve success. Although previously intending myself to carry nothing, since even a slight burden causes me more speedily to become exhausted, in this emergency I felt obliged to give aid; therefore on setting out in the afternoon for the higher camp I took the awkward canteen containing nearly a gallon of kerosene, supported by a narrow strap over one shoulder. Gabriel grumbled at my slow progress and frequent halts, but better was impossible. Later I exchanged the kerosene can for the mercurial barometer, which, though sufficiently awkward, about a yard in length, was easier for me to carry; yet bearing it the rest of the way up to the saddle and all the way down added greatly to my discomfort and fatigue.

At half past three, halting for the day, we set up the tent. While the others went back for more baggage, I banked the tent with snow, made observations with barometer and hypsometer, and melted snow for hot water. I was pleased to see Domingo returning with the others. He brought more candles, sugar, by mistake some raw fresh meat instead of the canned I had ordered; but alas! after all his labour, the wrong films: a few rolls already exposed and more of the wrong size; though, as I discovered later, the right ones were in the package and place described in my note. No more views! Should we advance or retreat? Already so high, it seemed best, if possible, to push on to the top. A successful climb was the main thing, though I was desolate at the thought of being unable to verify my story with photographs, however faint the idea they would give of the tremendous

features of the landscape. It did not occur to me that my word and that of the Swiss guide could be questioned; but afterwards I had reason to be thankful that the first attempt did not succeed and that from my second I brought back photographic evidence as positive proof of my ascent to the summit of the mountain.

Again a terrible night! The wind, howling worse than ever, fiercely slapped and banged the tent, till, in our exposed position near the edge of a steep incline, it seemed as if we might all be hurled to destruction. Little sleep for just or unjust! Tuesday morning, cold and windy, led to a short day's work. Domingo returned for a sack left below, the others went on with the baggage, while I spent several hours boiling the fresh meat from which we had broth for luncheon. Then, setting out together we found progress more difficult; here and there was soft snow into which I sank to knees rarely almost to waist, while the slope was so steep that we were forced to zigzag.

We had now passed the faces of the mountain and were between the two peaks, surrounded on all sides by yawning crevasses, ice falls, great hollows, perpendicular walls of snow, a heterogeneous combination of everything that could be fabricated out of ice and snow by the presiding genius of the upper ice world. Crevasses seem properly to belong in a glacier at one's feet, but here, of vast dimensions, they gaped at us from below and from perpendicular walls above, as if longing to swallow us up.

At last above both rocks at the portal, we halted so near the steep ice walls confronting us as to give hope for less wind at night — a hope fortunately realised, as all needed sleep. A look outside after dark revealed a wonderful scene. Enclosed on three sides by almost perpendicular walls of snow, from the shadow below I looked up at the north peak in the brilliant moonlight, a mile above my head. White fleecy clouds hovered over the valley. The Black Range opposite loomed up, of equal height or greater than we had yet attained. Slowly we were progressing, but I hoped surely.

Perhaps Wednesday, at least Thursday, we should reach the top of the saddle.

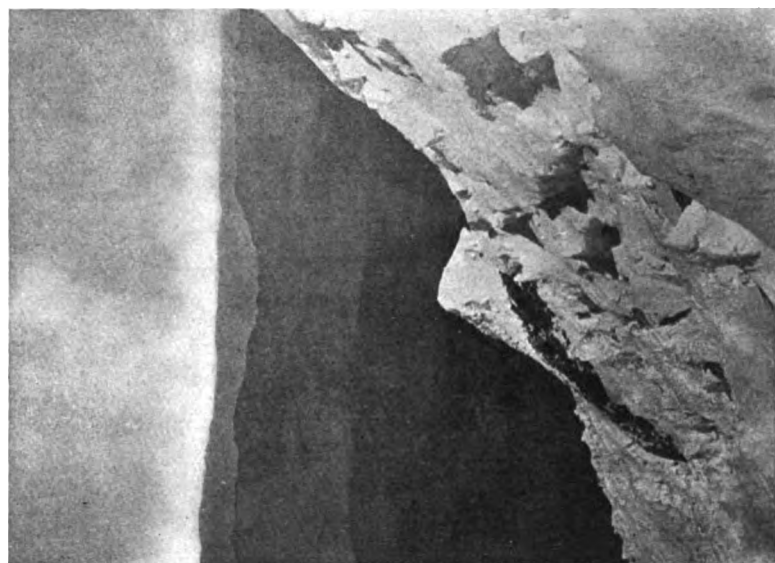
Though an apparently perpendicular wall seemed to block our progress we hoped to find a way around or through. The night was cold though with little wind. Contrary to my expectation and to my former experience with Swiss guides, I found them here not much more anxious for an early start than the indians had been. It was quarter past eight when the men set out Wednesday morning, but that was better than ten. Gabriel having informed me that he had slept little and was suffering from a headache, I advised that his first ascent be without a pack, for at this altitude step cutting, now necessary most of the way, proved exhausting labour, and his condition was of prime importance. The difficulties of the ascent increased; on one traverse where the steps were most unsatisfactory, the angle for a rod or two, Gabriel said, was above 70° . Farther on was a bit of perpendicular blue ice; here, after steps had been cut, the barometer had to be handed up and the rest of the baggage hauled with a rope.

After passing places which seemed to me more perilous, including many crevasses, I was surprised to see Gabriel balk at one, not very wide, which was crossed by a small snow bridge. Why he hesitated to advance, after testing the bridge with his ice axe, I could not see. (He informed me later that the crevasse was of unusual depth, and that if he had gone through at the end of the rope he believed that the indians could never have pulled him out.) Being lighter I proposed going ahead myself. Gabriel, after a little demur, accepted my second offer, when I carefully walked over, seated myself on a slope above, and winding the rope around my ice axe according to instructions held it securely, while he advanced on hands and knees.

Wednesday night found us still in the midst of ice walls and yawning chasms. Thursday was the worst of all. We had reached the steepest part of the saddle, a wall, Gabriel said, of from 80° to 85° —where if I had not known



Just beyond 70% slope, continued up more moderate grade in background



Black Rock at foot of North Peak

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that men had already gone up I should have said advance was impossible. The steps which were cut zigzag were so far apart that my thigh was often horizontal; the wall was so nearly vertical that in taking a step I was twice embarrassed by my knee striking the snow above, though the calf of my leg was perpendicular. To climb at such an angle, not for a few steps only, but for a long distance was terrifying.

It may be observed that I call this place a wall, as it was, and not a slope, which it was not. The remarks, therefore, of gentlemen, with intent to discredit my statement, that a snow slope much greater than 70° is impossible to ascend, have no bearing on the case. Even from the photograph, that it was a wall, is, I think, perfectly obvious; the character of its surface being entirely different from that of the slopes. Evidently there is here a sharp descent in the underlying rocks, and an immense quantity of snow had at some time broken from the field above. Just below was a heterogeneous mixture of extraordinary and irregular masses interspersed with tremendous caverns, crevasses, and overhanging walls, of which on my later ascent I designed on my return to take a photograph. Unfortunately, my camera's getting out of order after I had taken my views on the summit, prevented any photographs on the way down, until at the mine Señor Jaramillo discovered and repaired the slight fault.

The way above the wall was easier, but while advancing in the afternoon, Gabriel remarked that he was "almost finished." He, as well as the faithful *peones*, had been doing the work of two men; but *they* were greatly strengthened by the continual chewing of coca, which I could not induce Gabriel to try, though I found it invaluable for myself. I had hoped this afternoon to camp in the saddle, but in view of the guide's condition, at the first convenient place I gave the word to halt for the night. The two indians, knowing the fatigue of the Swiss, courageously assented to my suggestion that they return alone for the rest of the baggage. By the original agreement, they were to receive twenty soles

326 FIFTH ATTEMPT ON HUASCARAN

(ten dollars), each to go to the top of the saddle; in consideration, however, of their extra labour, I had promised them thirty for good service, and the money was faithfully earned.

Friday was a short day's work. After an easy forenoon's labour, at one o'clock we reached the top of the saddle, thankful to arrive at last and to have an afternoon's rest in anticipation of a laborious morrow. Yet not much rest for me, with the instruments to examine and snow to melt for soup and tea, an extra quantity of the latter to avoid delay in the morning. The saddle appeared to be about a quarter of a mile wide, and possibly half a mile through from east to west, sloping gently to the east.

According to a rough estimate from my observations, the barometer reading 14.56 inches and the hypsometer $81^{\circ}.02$ Centigrade, with a temperature of 22° Far., I believed that we were in the neighbourhood of 20,000 feet above the sea; not 25,000 as the good people of Yungay telegraphed, after we disappeared from their sight by passing over the edge of the saddle. On either side loomed the twin peaks several thousand feet higher. But the *arête* leading to the south summit, which I had fondly hoped would conduct us thither by a moderate angle, was broken at the bottom into impossible ice walls, *bergschründe*, and yawning caverns. The whole side of this peak was so similarly cut that Gabriel at once declared it to be inaccessible. The north peak appeared not quite so bad. It was steep enough and broken above into perpendicular or overhanging walls, yet we could make a start and perhaps by devious ways could reach the summit.

It was an advantage that we had a choice. The two peaks are so nearly equal in height that in the town below some persons suppose one peak to be the higher, some the other. My own opinion had always been that the south peak had a little the advantage, as afterwards proved to be the case. From below, this had appeared to be the easier, and of course would have been preferred if of equal difficulty; but either

would do and on Gabriel's verdict we decided to climb the north slope.

For an additional fee of ten soles each, I arranged with the indians to go on with us to the summit to carry our luncheon, instruments, and extra clothing. Going to bed early, we slept fairly well, as to our surprise and gratification there was no wind during the night. At 3:30 A. M. Gabriel was disinclined to stir; he thought it too cold to set out before light; thus it was 6:15 when we left the tent for the great and final task.

How we toiled up that steep incline in the cold morning, Gabriel cutting steps much of the way in the hard snow, under which no doubt was harder ice, then pausing while he held the rope for the rest to advance; how we made a long oblique traverse, and many zigzags up the inclines, now 40°, now 50°, and now 60°, how I was filled with continual apprehension as we proceeded higher lest we slide down some of those appalling slopes which ended in awful precipices; how we ate a scanty luncheon perched in mid air, none of us very hungry, though we had been on short rations for some time, since our stores except for our Peter's chocolate and our malted milk tablets were nearly exhausted; how Gabriel became more weary, the incline ever steeper, the wind stronger, and our feet colder, may be imagined if no further described. At last I inquired of Gabriel as to the prospect of reaching the summit. Though already after two, I was expecting to continue, as the descent would be much more rapid. I had long feared that it might be too rapid. Gabriel, after an upward glance, responded that it would take two hours longer. We could see above what we supposed to be the top, much nearer, yet at the rate we were going, at a considerable distance. Could we reach it? I was climbing as well as ever. With an occasional pause for breath it seemed that I could go on indefinitely; but if Gabriel gave out! The indians seemed all right, but that awful descent with Gabriel unable to hold the rope in the rear! And in darkness as well! "Ought we to go on?"

I asked. Gabriel replied that it would be a risk. I felt, a large one. "Almost finished," he had said on Thursday. He had eaten little since, and to-day, Saturday, he was doing the work of two men. If he collapsed, that would be the end. Should we reach the summit and then slide 4,000 or 10,000 feet down, what profit? No one would know of our triumph, and of what value a triumph to a dead man, or woman either? Better return alive to Yungay with almost, than be dead at the foot of the peak. Besides, there was another day coming; so I said: "If you think it dangerous to continue, let us retreat."

Word was given, the order was reversed, the descent begun. At first it was alarming. The steps were too far apart for ease or safety and a few shrieks with the exclamation: "We shall all be killed," were my prelude to continued action. But after a few struggles, I found my gait, my terror vanished; luckily we all wore climbing irons, the snow was a trifle softer, and soon we were making good time down that steep zigzag path. Few pauses for breath were needed, but exhaustion from our rapid descent compelled a swallow of cognac before reaching the level below.

The tent looked like home. About half past four we were inside, Gabriel and I at once throwing ourselves headlong on the blankets, where I gave vent to a few grunts which seemed to relieve my feelings. However, I was the first to revive, within a half hour sitting up and requesting snow for water and tea. But the stove refused to burn. At last I discovered that I had poured the oil on the floor of the tent instead of into the stove, so it was hours before we had tea. Until it was ready, Gabriel scarcely moved, and when he sat up for the tea was too tired to eat, thus forcing the conclusion that we had been wise in our retreat.

There was still a chance for the summit! The steps being cut we could ascend again with greater ease and rapidity. Would the *peónes* consent to another try for an additional ten soles, if Gabriel were able to lead us after one day's rest? Yes, they said they would; so Sunday was again a day of

rest except for my many hours over the stove. Fine weather continued with slight wind. Early Monday morning came the question, up or down? In answer to my inquiry, Gabriel, who had continued much prostrated, said that he was unable to go up: our food was nearly exhausted, so after spending *nine nights* on the snow, we were compelled to descend leaving my task unfinished. When I asked the indians whether they would attempt to carry all of the now somewhat lighter baggage at one time, rather than go over the road twice as they had done in the ascent, after testing the weight, which Gabriel later estimated at seventy pounds each, they decided to shoulder it all at once, Gabriel taking only his r  ck-sack and I the barometer.

The various dangers of the way were successfully passed, including the descent of that awful wall, save that in lowering our baggage here, as one would from the roof of a house, two sacks being insecurely tied together, one escaped and disappeared into a great crevasse, a truly lamentable accident! for here went various articles of value — the eskimo suit borrowed from the Museum of Natural History, and worst of all the stove; since in Yungay none could be obtained in which to burn alcohol or kerosene, and without a stove there could be no more climbing.

One camp after another we passed, picking up, at our second camp on the snow, another sack and my unused camera. Arriving just before dark at the first camp where two nights had been spent, Gabriel inquired if we should proceed. All voted to continue to the rocks, since without a stove no water or tea could be obtained there. Soon the lantern was lighted, still the going was difficult. The snow here was so soft that Gabriel, who was ahead, sometimes sank to his knees. In avoiding some of these deep holes from which I had trouble in getting out, one foot went into a fresh place still deeper, and so firmly that I was unable to move it at all. After a vain struggle, to the great disgust of Gabriel, I was obliged to call Domingo to dig me out with his ice axe. An hour after nightfall, cold and tired,

but thinking that we had done pretty well to reach there at all, in view of our late start about eleven, we arrived at the rocks, and after making tea were soon wrapped in slumber.

In the morning the indians asserted that they knew an easier way down. Gabriel favouring their plea, against my better judgment, we descended by the same breakneck route I had once followed in 1906. About ten, when near the floor of the hollow behind the ridge, I heard a whistle which I thought I recognised as my own, Taugwalder having carried this off in his pocket when he left. Presently we perceived four men on the ridge opposite, where *we* ought to have been, whom I at once believed to be a party coming in search of us. I had remarked on Sunday in the saddle, that the people of Yungay might be wondering over our long absence. Gabriel thought the men were shepherds; nevertheless I whistled and shouted my best to attract their attention. At length they answered and turned towards us, plunging down a very steep declivity. Gabriel now recognised Rudolf's voice and figure; soon we met him and three indians, coming to seek us with food, a chicken and other edibles, as they had guessed that our supply would be exhausted.

There was cordial greeting on both sides and we gladly sat down to eat the welcome food and to tell and hear the story. We learned that much anxiety had been felt over our prolonged absence. Our friends had watched us day by day through a telescope that I had left below, until we disappeared Friday noon at the edge of the saddle. When Monday came with no sign there was much alarm. They would naturally have expected to see us coming down on Sunday, if not on the top Saturday. The fact that we had disappeared for three days was telegraphed to Lima and thence cabled to the United States, if not over the world; the statement that we had been last seen at an altitude of 25,000 feet, and that the mountain was 26,000 being therefore one for which I was in no degree responsible. I had never estimated the mountain as more than from 23,000 to

24,000 feet. The Peruvians themselves called it 25,000 and even 27,000.

The Peruvian Government sent directions that search be made for us on the other side of the range, where it was feared we had fallen, and in all possible quarters. Monday being cloudy, in our descent over the snow, we were for the most part invisible: but Rudolf anxiously watching, was sure that about one o'clock he saw two persons moving. Search for us elsewhere was thereupon suspended, while Rudolf with Señor Jaramillo made preparations to come to meet us. But poor Rudolf said he was asked so many times if he was sure he saw us that he began to be a little doubtful about it himself. After spending the night part way, Rudolf had in the morning come with Señor Jaramillo to the mine, from there with three indians, and was rejoiced to find us all safe and sound. A little above the mine, we met Señor Jaramillo and Señor and Señora Campos who embraced me with much enthusiasm. Such embraces, let me state, are in no degree alarming. Methodists who disapprove of waltzing could hardly criticise them, as the embrace consists merely in putting the hands on one's arms, remaining all the while at a *very* respectful distance. It appears to be a mark of great cordiality.

On our return to Yungay that afternoon, we were warmly greeted by officials, strangers, and friends, many of whom had believed that we had perished. I am sure that my peaceful death in my native city or elsewhere would occasion far less excitement than my brief disappearance aroused among those friendly folk, whose welcome soothed a little my disappointment over the "almost, but not quite."

X

CHAPTER XXVI

VICTORY AT LAST! THE FIRST ASCENT OF HUASCARAN

A DAY'S rest and preparations were renewed. "What, again!" they said. "*Pobre* Miss Peck! *Pobrecita!*" "Do you want to go again?" they inquired. "No, indeed!" I replied. "I don't *want* to go. I *must* go!" Consultation with the guides proved them ready for another attempt, that is, after a few day's rest, Gabriel said, the time in any case being needful for preparation. Telegrams and messengers were sent to mines and to neighbouring towns to procure, if possible, heavy shoes, woollen stockings, and flannel shirts, for the two additional porters that seemed necessary; above all, for an alcohol or kerosene stove. After some delay, I procured from the neighbouring town of Caraz, a good Norwegian stove which burned kerosene with a gas flame in a manner similar to the one I had before, but a better article, probably the only one in the valley. I rejoiced indeed that my whole expedition had not been rendered abortive, through my inability to replace the cooking utensil, absolutely essential for food and drink. It was the merest chance that all my toil was not in vain. I made two more pairs of *unmentionables*, I developed films to find all that I had taken with my new camera worthless. Quickly ten days passed, for me mostly spent in labour, until again, for the sixth and happily the last time, Friday, August 28, I set out for my long desired goal.

It was now far later in the year than I ever expected to climb the mountain. June I believed would be the best month, soon after the close of the wet season, when sufficient time had elapsed by thawing and freezing to bring the snow into good condition, yet not so much as to make the crevasses wide and open as in 1904. I had hoped to make the climb at

least early in July. Now it was almost September, hardly a month in advance of my first visit in 1904. But fortunately the mountain was in vastly better condition than then, better even than in July, 1906. The precipitation the preceding season had been unusually great and the present dry season cold; thus the glacier this year was better covered with snow than I had ever seen it before, which was greatly to our advantage. The weather should at this time have been growing warmer; instead it was colder, although the sky was more cloudy, and for a day or two the mountain had been thickly veiled.

On my last ride to the mine, Matarao, I set out at 3:20 p. m. The indians had arrived a little before three, so late that I had given them up. Señor Jaramillo with the horses was later still, but by fast riding and, at the end, taking a new route we arrived before six. The ride, if one were not in a hurry or tired, as was always my case, is delightful. For an hour the route follows to the town of Mancos the highway leading up the valley. There are houses here and there along the road, cultivated fields at the right down towards the river, many also at the left on the rounded slopes and hilltops up towards Huascarán; and except on this occasion, there was, in the afternoon sunlight, a varying and glorious view of that radiant majestic mountain, which, with the completion of the railroad up the valley, will annually attract thousands of visitors. The road is lined with walls of stone or adobe, there are gurgling brooks, and the air is fragrant with the perfume of many blossoms; yellow broom, blue larkspur, and white everlasting were some of the flowers I recognized.

From the paved plaza of Mancos, one turns directly east towards Huascarán, at first along a narrow paved and walled pathway, among numerous houses which gradually become more scattered. The homes for pigs and people closely resemble each other. There are fields of wheat, corn, peas, beans, and alfalfa, with grassy meadows supplying all shades of green and brown. There are peach trees,

poplars, and willows, some trees that resemble the orange but are larger. The land is well tilled and supports many people. It is a beautiful country, even without the great mountain confronting us. There is a gorge below on our right, presently on the other side a high brown bluff, in which are coal mines now useless for lack of transportation. The path is rough, sometimes with steps hewn out of rocks. The indians we meet are badly dressed, most of them look old and bent. They have no ambition for anything beyond the absolute necessities of life.

Señor and Señora Campos, who were expecting us at the mine, were our cordial hosts as before. Both had been ill with colds but were now improving. The Señor had a particularly weak throat, which, he said, he had learned to strengthen by taking a cold bath every morning. This was unheard-of rashness on the part of a Peruvian, and I exclaimed, "What! a whole cold bath!" "Well, no," he said, "but to his waist;" even this, he agreed, was amazing to all his friends, who thought it would be his death; he assured me, however, that it had proved beneficial and I encouraged him to continue the operation, telling him that in our colder climate people indulge in daily baths to advantage.

As the indians with our baggage did not appear, cotton cloth in the piece was spread as a bed for me. Further, Señor Jaramillo supplied a heavy poncho, Señora C—— a shawl, with which I managed to be comfortable, but for some reason I could not sleep. During the night the indians arrived, with everything safe, but in the morning, as it was still cloudy on the mountains, I decided that a day's delay might be wise. There was sure to be fresh snow on the glacier, which needed a day or two of sun and nightly freezing to bring it into good condition. On departing with the horses for Yungay, Señor Jaramillo inquired when I thought we should be back. After a moment's hesitation, I replied, "Next Saturday," and we were. A heavy poncho, which had been used on my saddle on the way out, Señor

J—— said he would leave, so that I could have it on my return; a most fortunate accident, as without that poncho I should doubtless have come back, if at all, with the ultimate loss of my left hand.

For some unaccountable reason, possibly over-work, I was not feeling very well this morning, for an instant a little faint, which had the more inclined me to wait over a day. The hospitable Señora, inquiring what I would like for *almuerzo*, the noon meal, I replied, "*Caldo* (a soup), and boiled eggs," which I knew could be easily provided. (An extensive menu or much variety was not to be had on the mountain side.) These were supplied and in addition, beef-steak and rice, coffee and tea. Tea was served again at three, but none for me. I took a needed nap in the forenoon, and a short walk in the afternoon, looking into the houses both of an indian and of the administrador. The indians use their houses very little except for sleeping, and storing what few goods they possess. Many things were hung up. The cooking was done outside, the sewing as well. There were no chairs. In the house of the administrador, the chairs were few and rickety. The adobe floor of the dining room, which was living room as well, was very uneven, dishes were not many, but the genuine hospitality was large.

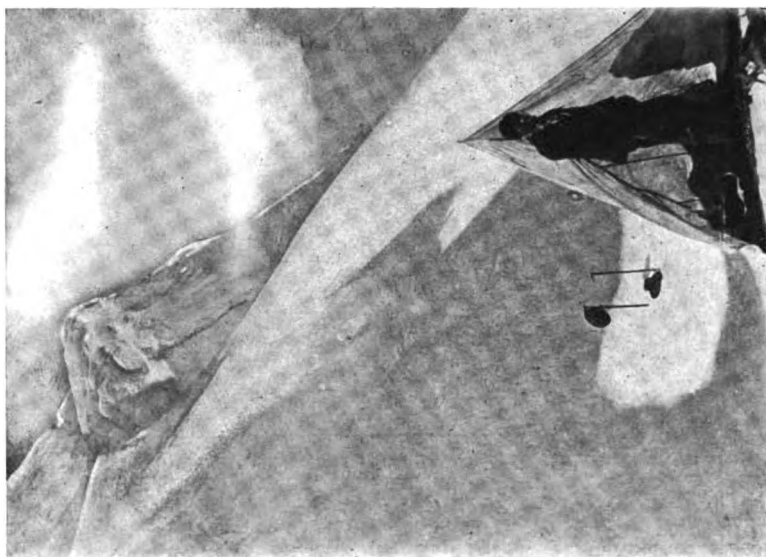
Sunday morning, about eight o'clock, we set out for the snow line, Señor Jaramillo's poncho being added to our baggage. Though he had not left it for that purpose, I thought he would not object, and that it would help out our supply of bedding which was rather scanty. It soon appeared that we three, the Swiss guides and myself, were in better condition than before, and going by the proper route from the ridge into the gully where there was water for luncheon, we continued to the camping place which I indicated, arriving at the extraordinarily early hour of quarter past two. Thus we had ample time to set up the tent, collect firewood, make soup and tea before dark and

get early to bed. Our new men, who at first seemed a trifle less willing and intelligent than the others, later proved entirely satisfactory.

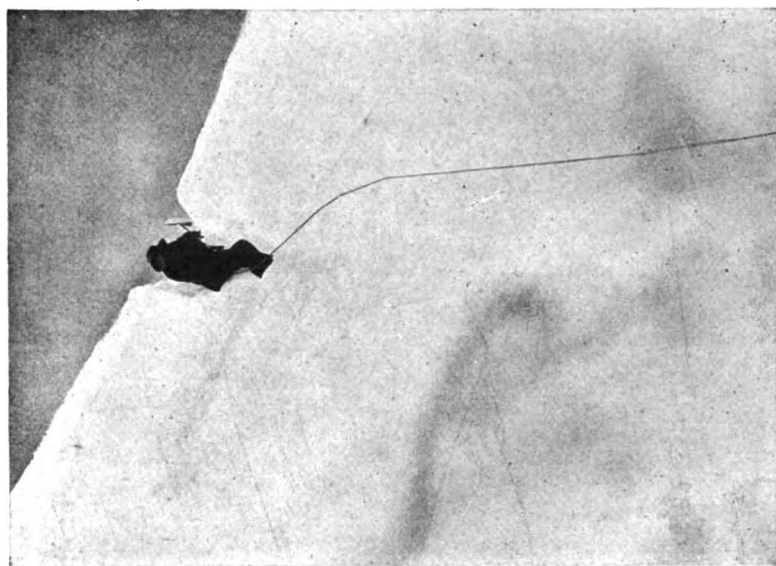
Domingo and Anacreo, whom we wished to have accompany us, had been unable to do so, not yet having recovered from their arduous labours, especially on the descent; the climax of which had been the insistence of Señor Jaramillo that they on foot keep up with us on horseback on our way from the mine back to Yungay. To do this they were obliged to trot down the hill and along the road (a really cruel proceeding in their fatigued condition, though they were not then carrying the packs), merely to please their master by our all returning together. Finally upon my protest he allowed them to lag in the rear.

On Monday after an early breakfast of soup, improving in this way our last opportunity for a wood fire, at the early hour of 7:15 we entered upon the glacier, the four indians all wearing climbing irons, as enough had been made so that each of us had a pair. The Swiss guides, however, preferred to dispense with them, and I as well, unless they should prove absolutely necessary, for after my return to Yungay, I had discovered that two toes and the whole top of my right foot had been frost-bitten, on account of one strap, which was a little short, having been drawn so tight as to impede the circulation in that foot. Gabriel also had had two of his toes frost-bitten, but not severely.

During Saturday forenoon the clouds had left the mountain so that, with two days of sunshine on the fresh snow and the nightly freezing, we found the glacier in better condition than ever before. Going straight up from our more favourable starting point, in two hours we arrived at the site of our previous first camp. After a brief halt we pushed on to our second camp, where we had luncheon. Under the excellent conditions, with four good porters, and no double work, we continued in the afternoon almost up to the site of our fourth camp. Pausing about four o'clock, well pleased with our day's work, we pitched our tent in a



Camp half way to saddle



**Copyright, 1900, Harper & Brothers
Gabriel cutting steps in perpendicular wall**

Digitized by Google

May

sheltered spot, well up in the saddle, at the foot of a more than vertically inclined snow wall.

In spite of our favourable position, the night was windy and the morning cold, but soon after eight we were on our way. Having safely negotiated the steep ascent concluded by the perpendicular bit of blue ice (which we reached by going up in zigzags farther to the right outside of the picture, then walking along the ledge to the place where Gabriel is cutting steps), we were soon near the foot of the great wall, in the midst of seracs, crevasses, caverns, and every variety of difficulties. The way we had previously taken was blocked by the disappearance of a snow bridge, but Gabriel found another route, threading his way among hollows and immense crevasses till we came to the more solid part of the wall with an angle of approximately 80° or 85° . We went up in two divisions, as we had been climbing previously, Gabriel leading one and Rudolf the other. Thankful was I to reach the top in safety and throw myself down for rest and luncheon, knowing that the remainder of the way to the top of the saddle was comparatively easy.

Yet in this easy part we had an adventure, which was the more surprising. A crevasse extending nearly all the way across the saddle was spanned by a bridge of so doubtful appearance that Rudolf who was leading went over on hands and knees. I, being in the middle of the rope and also much lighter, walked carefully across, while Rudolf was sitting on the farther slope with the rope around his ice axe. Taking a position above him in the same manner, I re-enforced his strength with mine; Lucas at the end of the rope then followed, walking, as on account of his pack it would have been impossible for him to crawl.

Suddenly there was a cry. Lucas had disappeared. Of course the alpen rope was strong and our hold was good. Rudolf admitted later that my help was of real value. My wrists, it happens, are disproportionately strong. Lucas, though uncomfortable, was probably in no danger. Gabriel at the head of the second rope, exhorted the other

three men to untie quickly, this more by motion than by speech, for neither of the Swiss had picked up much Spanish; he then threw down one end of the rope to Lucas, who, luckily, was the most intelligent of the indians, and preserved his coolness. Though he had fallen head down, as is usual, he was able to right himself and tie this rope to the one about his waist. Then the men below and Rudolf and I above pulled him up to the surface, when he got out on the lower side, naturally without his pack, which, with many other articles, again contained the stove. As without this further advance was impossible, when the men had made the crossing at a point farther north, and Lucas had declined the honour, Gabriel undertook its recovery. The crevasse luckily was neither very wide nor deep, so Gabriel, at the end of the rope which was held carefully by the others, climbed down where they had crossed to a depth of thirty feet, walked along the bottom to the broken bridge, and after some minutes of suspense appeared again with the rescued baggage. Such an effort at this altitude, over 19,000 feet, was doubly severe, and Gabriel paused a few moments, leaning over with his head on his ice axe, before he was able to proceed. I, meanwhile, remaining where Rudolf and I had crossed, had improved my time by taking photographs of the crevasse. Afterwards, at the top of the very last wall, Adrian stumbled and almost fell backwards, dropping his alpenstock, which happily lodged not far down and was recovered again by Gabriel.

In fairly good season we encamped that night on the plain at the top of the saddle, in two days from the snow line, a feat which I had previously hoped with Swiss guides to be able to accomplish. The exceptionally cold day, the coldest I had experienced in my six efforts on this mountain, was followed by a high wind at night — an unpleasant contrast to our previous experience here, when all three nights had been almost windless. In the early morning, I thought it wiser to postpone our final effort till the fierce wind should abate; we should also be in better condition following a rest



North peak from camp half way to saddle



South Peak from camp half way to saddle

U.S. GEOLOGICAL SURVEY

1750

from two long and hard days' labour. Had I expected to make the attempt on this day I should have insisted upon an earlier start. Both guides, however, though not anxious to set out early, were in favour of going, asserting that we might find less wind higher up, if not that we could turn back. On the contrary, unless the wind died down altogether, it was more likely to be worse above, and it was against my better judgment that I yielded to their wishes.

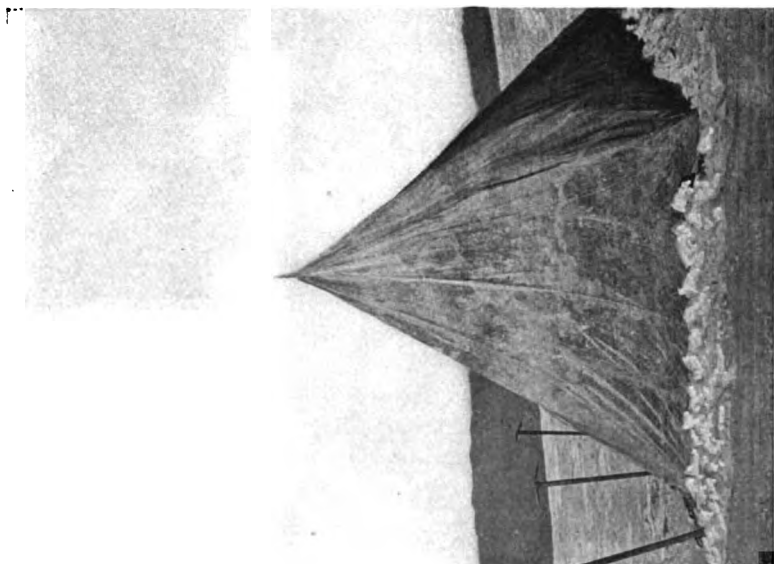
At the late hour, for such a climb, of eight o'clock, we set forth, myself and the two guides only, as with the two Swiss the indians would not add to the safety of the party, probably the reverse. For the cold ascent, I was wearing every stitch of clothing that I had brought:—three suits of light weight woollen underwear, two pairs of tights, canvas knickerbockers, two flannel waists, a little cardigan jacket, two sweaters, and four pairs of woollen stockings; but as most of the clothing was porous it was inadequate to keep out the wind, for which I had relied upon the eskimo suit now at the bottom of a crevasse. I had not really needed it before, nor worn it except at night. Now when I wanted it badly, it was gone. I am often asked if my progress is not impeded by the weight of so much clothing, to which I answer, No. All of the articles were light, and garments which cling closely to the body are not burdensome. I never noticed the weight at all. A skirt, on the contrary, however short and light, anything depending from the waist or shoulders, is some hindrance to movement and of noticeable weight. I had not an ounce of strength to spare for superfluities, neither do I consider that an abbreviated skirt would add to the gracefulness of my appearance, or if it did, that this, upon the mountain, would be of the slightest consequence: while in rock climbing the shortest skirt may be an added source of danger.

A woollen face and head mask, which I had purchased in La Paz, provided with a good nose piece as well as eye-holes, mouth-slit, and a rather superfluous painted moustache, protected my head, face, and neck from the

wind. An extra one, which I had brought along, a rather better article except that it left the nose exposed, I offered to Gabriel, Rudolf having brought a hood of his own. Somewhat to my surprise, as the guides had seemed always to despise the cold and to regard my warnings as superfluous, this offer was accepted with alacrity. My hands were covered with a pair of vicuña mittens made for me in La Paz with two thicknesses of fur, one turned outside and one in. For these, until the day before, I had had no use; they now kept even my cold hands comfortable. In fact, as the sun rose higher, they became too warm and were exchanged for two pairs of wool mittens, one of which, however, did not cover the fingers. The fur mittens, being too large to go into my pocket or leather bag, were handed over to Rudolf, who was next to me, to put into his rüch-sack.

I had repeatedly warned the men of the great danger of freezing above, not so much from the actual cold as from the rarity of the air, telling them how Pelissier (one of Conway's guides), with two pairs of stockings, had had his feet frozen on Aconcagua so that they turned black, and he barely escaped losing them; how Zurbriggan, Maquignaz, and others had been frost-bitten on Aconcagua and Sorata. In spite of this, they hardly seemed to realise the necessity of so much care. They stated that their shoes would admit of but one pair of their heavy woollen stockings and seemed quite unconcerned as to the possibilities of freezing.

The men carried food and tea for luncheon (the latter I had sat up to make the night before, after the rest had gone to bed), the hypsometer to take observations, and my camera. The mercurial barometer I had left in Yungay, from misgivings that I might have to carry it if it was brought along. As there was no extra clothing of mine to transport, since I had put it all on, I ventured to ask if one of the guides could carry up the warm poncho, fearing that I might need it when we paused for luncheon or on the summit. It was rather heavy and a considerable burden at that altitude, but Gabriel said he could take it; to the fact-



Camp in saddle, and Black Range



Camp in saddle, with North peak

May

of my extreme, apparently superfluous caution, and of Gabriel's willingness and strength, I certainly owe the possession and soundness of all my limbs, as I also owe Gabriel my life. The canteen of alcohol, which was used to light the fire of our kerosene stove, and from which also a small draught night and morning was given to the indians, was carried some distance from the tent lest the temptation to drink this in our long absence should prove too much for them. When the can was deposited in the snow, with which it was half covered to make sure that it would not blow away, I inquired, "Are you sure you can find this on our return?" Both men replied that they certainly could.

Considering the altitude our progress seemed rapid. On the slope above the camp no steps were needed, but when, after an hour or less, we turned to the left, making a long traverse among great crevasses, walls, and appalling downward slopes, it was necessary that steps should be cut all of the time. The snow was in a worse condition than before. It had been hard enough then (though softer in the middle of the day), but not so smooth. Now the severe cold had made it harder still, while the high wind had blown from the exposed slopes all of the lighter particles, leaving a surface smooth as glass, such as Gabriel said he had never seen in Switzerland except in small patches.

Coming out at length upon a ridge where we were more exposed to the wind I felt the need of my vicuña mittens which had seemed too warm below. I delayed asking for a while, hoping to come to a better standing place; but as none appeared, calling a halt I approached Rudolf, who continually held the rope for me, while Gabriel was cutting the steps, so that the delays necessary on the previous ascent were avoided. Rudolf, taking the mittens from his rucksack with some black woven sleeves I had earlier worn on my forearms, tucked the former under one arm saying, "Which will you have first?" I had it on the end of my tongue to exclaim, "Look out you don't lose my mittens!" But like most men, the guides were rather impatient of what

they considered unnecessary advice or suggestions from a woman, even an employer; so, thinking, he surely will be careful of my mittens, I refrained and said, "Give me the armlets!" A second later Rudolf cried, "I have lost one of your mittens!" I did not see it go, it slipped out at the back, but anything dropped on that smooth slope, even without the high wind, might as well have gone over a precipice.

I was angry and alarmed at his inexcusable carelessness, but it was useless to talk. I could do that after we got down, though under subsequent circumstances I never did. I hastily put my two brown woollen mittens and one red mitt on my left hand, the vicuña fur on my right which generally held the ice axe and was therefore more exposed. Onward and upward for hours we pressed, when at length we paused for luncheon being too cold and tired to eat the meat which had frozen in the rüch-sack, and the almost equally hard bread; though we ate Peter's chocolate and raisins, of which we had taken an occasional nibble, each from his own pocket, all along the way. (I had found a few raisins in one of the stores and bought all they had.) The tea, too, was partially frozen in Rudolf's canteen. About two o'clock, Taugwalder declared himself unable to proceed. I was for leaving him there and going on with Gabriel, but the latter urged him onward, suggesting that by leaving his rüch-sack, he might be able to continue with us. This, after a short rest, he did, finding that we were going on any way. Gabriel now carried the camera and hypsometer, in addition to the poncho, besides cutting the steps.

The latter part of the climb was especially steep. All, suffering from cold and fatigue, required frequent brief halts, though we sat down but twice on the way up and not at all at the top. At last we were approaching our goal. Rounding the apparent summit we found a broad way of the slightest grade leading gently to the northern end

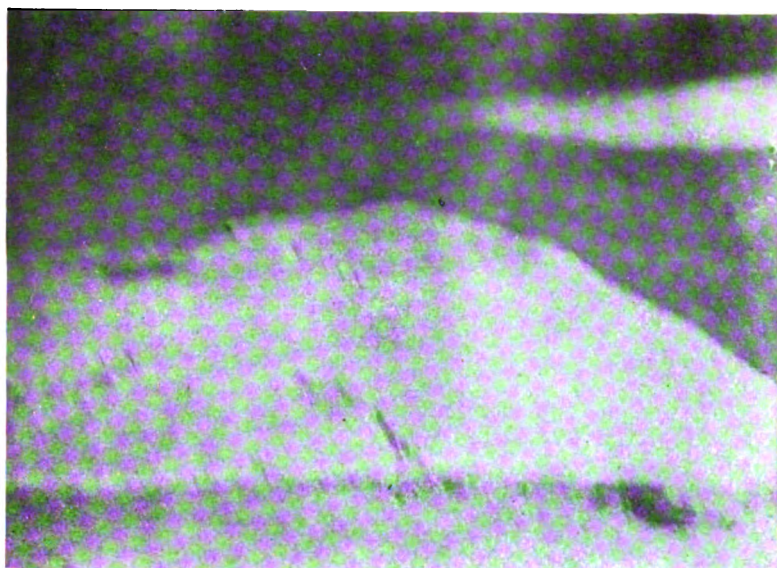
of the ridge, though from below, the highest point had appeared to be at the south. On the ridge, the wind was stronger than ever, and I suddenly realised that my left hand was insensible and freezing. Twitching off my mittens, I found that the hand was nearly black. Rubbing it vigorously with snow, I soon had it aching badly, which signified its restoration; but it would surely freeze again (it was now three o'clock) in the colder hours of the late afternoon and night. My over-caution in having the poncho brought up now proved my salvation. This heavy shawl or blanket, with a slit in the middle, slipped over my head, kept me fairly warm to the end, protecting my hand somewhat, as well as my whole body. At the same time, it was awkward to wear, reaching nearly to my knees, and was the cause of my slipping and almost of my death on the way down. But for the loss of my fur mitten I should not have been compelled to wear it except, as intended, on the summit.

A little farther on, Gabriel suggested our halting for the observations, as the wind might be worse at the extremity of the ridge. The slope, however, was so slight that there was probably no difference. Rudolf now untied and disappeared. I was so busy over the hypsometer that I did not notice where he went, realising only that he was not there. While, careful not to expose too much my left hand, I shielded the hypsometer from the wind as well as I was able with the poncho, Gabriel struck match after match in vain. Once he lighted the candle, but immediately it went out. After striking twenty matches, Gabriel said, "It is useless; we must give it up." With Rudolf's assistance in holding the poncho we might have done better. But it was past three. That dread descent was before us. Sadly I packed away the instrument, believing it better to return alive, if possible, than to risk further delay. It was a great disappointment not to make the expected contribution to science; perhaps to have broken the world's record,

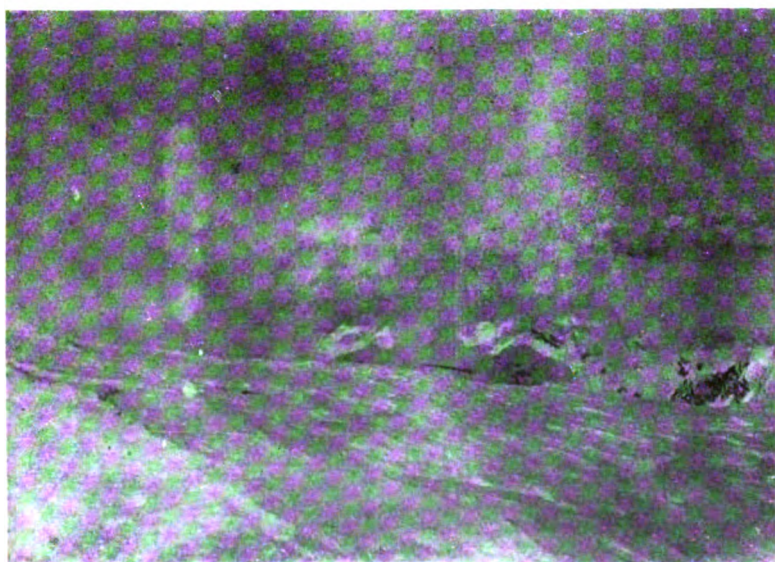
without being able to prove it; but to return alive seemed still more desirable, even though in ignorance of the exact height to which we had attained.

Rudolf now appeared and informed me that *he* had been on to the summit, instead of remaining to assist with the hypsometer. I *was* enraged. I had told them, long before, that, as it was my expedition, I should like, as is customary, to be the first one to place my foot at the top, even though I reached it through their instrumentality. It would not lessen their honour and I was paying the bills. I had related how a few feet below the top of Mt. St. Elias, Maquignaz had stepped back and said to the Duke of the Abruzzi, "Monsieur, à vous la gloire!" And Rudolf, who with little grit had on the first attempt turned back at 16,000 feet, compelling me to make this weary climb over again, who this time had not done half so much work as Gabriel, who had wished to give up an hour below the summit, instead of remaining here with us to render assistance with the observations, had coolly walked on to the highest point! I had not *dreamed* of such an act. The disappointment may have been trivial. Of course it made no real difference to the honour to which I was entitled, but of a certain personal satisfaction, long looked forward to, I had been robbed. Once more I resolved, if ever we got down again, to give that man a piece of my mind, a large one; but after all I never did, for then he had troubles enough of his own, and words would not change the fact. Now, without a word, I went on.

Though the grade was slight, I was obliged to pause several times in the fierce wind, once leaning my head on my ice axe for a few seconds before I could continue to the goal. Gabriel stopped a short distance from the end, advising me not to go too near the edge, which I had no inclination to do, passing but a few feet beyond him. I should like to have looked down into the Llanganuco Gorge, whence I had looked up at the cliff and the thick overhanging cornice, such as impended above the east and west cliffs also. We had, therefore, kept in the centre of the broad



Top of South peak, from summit ridge of North peak



Summit ridge with clouds and tops of mountains south east

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And

ridge, at least 40 feet wide, it may have been more: it seemed wider than an ordinary city street. Had it been earlier in the day, being particularly fond of precipices, and this would have been the biggest I had ever looked down, I should have ventured near the north edge with Gabriel holding the rope; but now I did not care to hazard delay from the possibility of breaking through the cornice.

My first thought on reaching the goal was, "I am here at last, after all these years; but shall we ever get down again?" I said nothing except, "Give me the camera," and as rapidly as possible took views towards the four quarters of the heavens, one including Gabriel. The click of the camera did not sound just right, and fearing that I was getting no pictures at all, I did not bother to have Gabriel try to take a photograph of me. This I afterwards regretted, as I should like to have preserved such a picture for my own pleasure. But in later days I was thankful indeed that in spite of high wind and blowing snow the other pictures did come out fairly; for it is pictures *from* the summit that tell the tale, and not the picture of some one standing on a bit of rock or snow which may be anywhere.

The view was nothing unless I could have gone to the edge of the broad surface. The other twin peak at the south, obviously a little higher, as I had always maintained, shut out the rest of the range in that direction, and we were so much above the mountains at the north that not going quite to the end, I did not see even Huandoy on the other side of the Gorge. The Cordillera Negra I had long been familiar with from the valley below and all the way up, while the view of the snow mountains towards the east, which I particularly desired to see, was cut off by our distance from the edge, save at the southeast where some peaks far below were visible.

There was no pleasure here, hardly a feeling of triumph, in view of my disappointment over the observations, and my dread of the long and terrible descent. If ever I were

safely down, there would be plenty of time to rejoice. It was half past three, and soon would be dark. Seven hours coming up! Would it take us as long to return? Steep rocks and icy slopes are far more dangerous to descend, and especially perilous after dark; with those small steps, the prospect was indeed terrifying: so without a moment's rest we began our retreat. The summit ridge, at least a quarter of a mile in length, was quickly traversed, at that altitude a slight change in grade making as much difference as in bicycling.

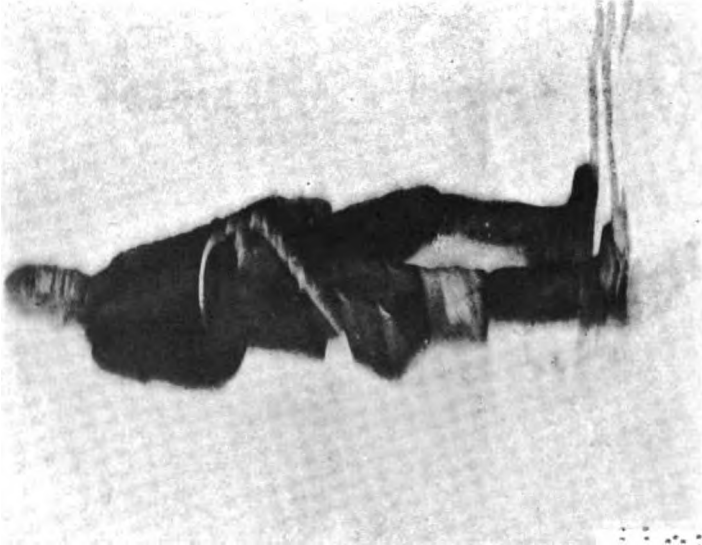
Gabriel had led nearly all the way up, cutting most, if not all, of the steps. Rudolf had been second, in order to hold the rope for me, avoiding all possible delay. Going down I was roped in the middle, the more usual position for the amateur, Rudolf at first taking the lead and Gabriel occupying the more responsible place in the rear; for in descending, the rear is the post of honour, as that of leader in the ascent; since the strongest of a party must be above, holding the rope in case of a slip on the part of the amateur in front. A guide, of course, is never expected to slip and a good one practically never does. If the rear guard goes, as a rule all are lost.

The guides' shoes being well studded with nails they had not cared to wear the climbing irons, to which they were unaccustomed, and which by impeding the circulation would have made their feet colder. My shoes were more poorly provided, as it was impossible to procure in New York such nails as are employed in the Alps. I had intended to wear the crampons which would have made them unnecessary, but on Gabriel's advice had left them below, lest my feet should be frozen, as the one previously touched by the frost would have greater liability.

At the end of the ridge difficulties began. A smooth slope of 60° is never pleasant. From the beginning of the descent I greatly feared the outcome, but we had to go down and the faster we could go, yet carefully, the better. Presently I saw something black fly away: one



Copyright, 1909, Mishkin Studio
Miss Peck as on summit of Huascarán



Gabriel on summit near north edge

Archiv

of Rudolf's mittens. One might suppose that after losing mine he would have been the more careful of his own. When I inquired afterwards how he came to lose it, he said he laid it down on that icy slope to fasten his shoe. Of course the wind blew it away. Later I learned that after dark he lost the second mitten. This he said was in trying to change from one hand to the other. He thought he had hold of it, but his hand being numb, he could not feel it, and this went also. If he had spoken we should have halted, so that he could make sure. His carelessness seems incredible and inexcusable, and brought disastrous consequences to himself and nearly to us all, almost costing our lives. Probably I should not have slipped, had I not been obliged on account of the loss of my fur mittens to wear the poncho which occasionally prevented my seeing the steps. Certainly Rudolf himself would not have slipped any more than Gabriel, if his hands had not been frozen and himself chilled through, so that one foot froze also; thus his footing was insecure and his grip on his ice axe less firm. It seems almost a miracle that he slipped only once and that we at last got down alive. His carelessness may perhaps be explained by the fact of his being so much affected by the altitude that it rendered him stupid, as below he had seemed as thoughtful and as careful as Gabriel. The latter, however, I had regarded as a trifle the more intelligent, as he was evidently the stronger.

On this steep slope, I deeply regretted the absence of my climbing irons, for the steps were small indeed. On the Jungfrau those made by my guide Baumann were very large, requiring from ten to twenty blows; but this would never do on the much longer slope of Huascarán. Two or three hacks for each were all that Gabriel could give, so they were not half as large as his shoes, little more than toe-holes. They did well enough going up but not on the way down. While zigzagging I missed a step, sat down and slid a few feet, but Gabriel above was holding the rope tight and I easily regained my footing.

Some time after dark it seemed advisable for Gabriel to take the lead (such matters of course I left to them), perhaps because he was more familiar with the way or could see better on the long sloping traverse across the wide face of the mountain in the midst of caverns, crevasses, and those dreadful slopes and precipices; yet as a slide anywhere would have been fatal, one place was just as bad as another, except as some parts were steeper. Gabriel estimated the incline as from 40° to 60° through the greater part of the distance. I had brought with me a clinometer, but never had time and strength to use it. I had been on measured slopes of 42° and 53° on my first mountain, and judging from these, had never afterwards over-estimated any that had been capable of verification. My opinion here coincides with Gabriel's. If anyone should not accept it, the matter is of little consequence as compared with the altitude, which unfortunately I had been obliged to leave unmeasured. But that could be determined at a later date. Whatever it might be, the *fact* of my ascent would stand.

My recollection of the descent is as of a horrible nightmare, though such I never experienced. The little moon seemed always at my back, casting a shadow over the place where I must step. The poncho would sway in the wind, and, with my motion as I was in the act of stepping, would sometimes conceal the spot where my foot should be placed. Although my eye for distance is good, my foot once missed the step, slipping then on the smooth slope so that I fell, as usual in a sitting posture, crying out at the same time to warn the guides. I expected nothing serious, but to my horror, I did not remain where I was. Still sitting I began to slide down that glassy, ghastly incline. As we were all nearly in the same line, I slid at least fifteen feet before coming to a halt, when checked by the rope. Now to get back! The guides called to me to get up, but being all in a heap, with the rope tight around my waist, I was unable to move. The guides therefore came together just above and hauled me up the slope. Thankful again to

be in the line of the steps, though more alarmed than ever, I went onward, resolved to be more careful. But again I slipped, and again slid far below. While from the beginning of the descent, I had greatly feared the outcome, after these slips my terror increased. Several times I declared that we should never get down alive. I begged Gabriel to stop for the night and make a cave in the snow, but, saying this was impossible, he continued without a pause. The snow indeed was too hard, yet in some cavern or crevasse I thought we could find shelter from the wind. Gabriel afterwards asserted that if we had stopped we should all have frozen to death.

Again and again I slipped, five or six times altogether, but always Gabriel held his ground firmly. Always, too, I clung to my ice axe; so to his shout, "Have you your axe?" I could respond in the affirmative, and sometimes with it could help myself back again. Once when I had slipped, I was astonished to see Rudolf dart by me, wondering how he could help me by running far below. Afterwards I learned, that with my pull he, too, had slipped and Gabriel's strong arm alone saved us all from destruction. Had he given way, after sliding some distance we should all have dropped off thousands of feet below. When he saw Rudolf go, Gabriel thought for a moment that we were all lost; but his axe was well placed with the rope around it, and although two fingers were caught between the rope and the ice axe, knowing it was life or death he stood firm until Rudolf recovered himself. Otherwise, Gabriel said afterwards, he never despaired but thought only of going on. Rudolf, however, to my great astonishment, for I had supposed I was the only one who was frightened, confessed later that he never expected to get down alive.

The cold and fatigue, the darkness and shadow, the poncho blowing before me, the absence of climbing irons, the small steps, the steep glassy slopes, presented an extraordinary combination of difficulties. It seemed that the way would never end. I tried to comfort myself with the reflec-

tion that accidents do not run in our family, that nothing serious, more than broken ribs or knee-pan — these not in climbing — ever *had* happened to me; but also I was aware that people do not generally die but once. I said to myself, for the first time in my life, I *must* keep cool and do my best, and so I did; but after several of those horrible slides — Well, there was nothing to do but to plod along.

At last, at last —! Before I was aware that we had emerged from among those terrible abysses to the slope above the tent, Gabriel said “Now we are safe; and if you like you can slide.” What a tremendous relief! I sat down happily, Gabriel walking ahead and guiding me with the rope. At first it was fun, then I went too fast, bobbing here and there, bumping, floundering, finally turning around, sliding on my back, and giving my head a hard whack before I came to a halt. However, we were nearly down and walked on to the tent where we arrived at half past ten, thankful for rest and shelter. There was nothing to drink, we were too tired to eat or sleep, but glad indeed to sit down in safety, too fatigued at first even to lie down.

Poor Rudolf! His hands were badly frozen, his fingers black, the left hand worse than the right. He was rubbing them weakly with snow, first one, then the other. I told him he should rub them harder to get up circulation; I felt I ought to do it myself, but somehow sat there and did not. Gabriel did not offer to, either. He no doubt was thoroughly worn out, too. One of the indians might have done it, but after greeting us, they huddled up on their own side of the tent and went to sleep again, and no one asked them. There was not room in the tent for seven persons to lie down, so we three had one side of the pole, the four indians the other. They curled up in their ponchos, two with heads one side and two the other, half sitting, with feet toward the middle. I was unable to use my sleeping bag properly on this trip, for there would have been no room left for the guides. I had therefore taken the blankets from the canvas cover and spread them out with other blankets brought from

the Vinatéas, and we had managed to be fairly comfortable. Heretofore I had taken the inside as being warmer, but to-night after sitting awhile, I took the outside, leaving the place in the centre for Rudolf.

The wind continued to blow hard all night and the next day. We did not rise early and no one proposed descending, though I felt that Rudolf ought to get down as soon as possible. Gabriel went up for the can of alcohol, looking at the same time for a leather bag which had been attached to my belt and which had disappeared, doubtless in one of those terrible earlier slides, rather than on the last, since it was nowhere to be found. Also, as I had feared, the can of alcohol did not appear; whether covered by blowing snow or whether the indians had gone up and drunk it, then concealing the can (though of this they gave no sign), or what became of it we could not tell. Being without fire we had no water, soup, or tea. I tried for an hour or more by burning matches to heat and ignite some oil in the place where the alcohol should have gone. Once I had it burning for a moment, but after using a whole box of matches, I gave it up. Quinoa meal with snow and sugar, or the last two alone were our best substitutes for water.

Friday we were somewhat rested, the wind abated, and we started down. Soon we came to another icy slope, not very steep, where the indians with their climbing irons passed easily, but where I began to slide standing. Gabriel appeared rather vexed with me, but I did not see how I could help it. The guides weighed much more than I, and with the heavy nails on their boots doubtless made indentations which I could not do. However, by going slowly, with care and with the aid of the rope, I passed the glassy surface safely.

At the top of the great wall, I decided to put on my crampons, preferring on the whole to risk freezing my toes rather than losing my life. Gabriel had proposed that all descend together. I said "No, one at a time, if it does take longer." I had climbed my mountain at last and did not

wish to be killed on the way down. Our three ropes being tied together, the others descended one by one, Rudolf first, then the indians, while Gabriel, aided by Lucas, lowered the rope from above and then hauled it up for the next man. The rope reached but part way down to a convenient ledge of snow, where the men waited in the midst of crevasses until all had come down. Gabriel had estimated the entire wall at 300 feet. After my return to Yungay, I took the trouble to measure the ropes; the total being 180 feet, it seemed that his judgment was fairly accurate. I should not have ventured a guess myself, not being used to making estimates of that nature. While descending this upper part of the wall, one of the indians slipped, falling, he said, *dos cuerdas* — two blocks — an evident exaggeration, as the rope was held above; but it was fortunate we were not together, or his slip might have proved fatal to all.

I was the last to go down except Gabriel and Lucas. For a time all was well. Of course we went backwards as on a ladder. Then for some reason I moved a little more slowly, while the men seemed to lower the rope more rapidly. I did not like to proceed with the rope so loose; as there was a deep crevasse in the wall close by, the upper outside edge of which gave a seat, with a resting place for one foot below, I sat down there, hoping that the men might perceive that the rope was not taut and draw it part way up again. As they did not, I untied and threw it off, shouting to them to pull it up. Evidently they could not hear and continued to lower it farther, the end going down into the crevasse behind me. At last they pulled it up and there I sat perched half way on the wall, unable to see the men above or those below, and obliged to remain motionless on my icy seat, where a fall backwards would precipitate me into a black and profound abyss, and a slip forward to a greater depth down the face of the wall into some immense cavern or *bergschlund* at the bottom. So long as I sat still, I was safe, though when at last Lucas came down, I had to crowd myself into the smallest possible space in order to give him



View of saddle with nearly perpendicular wall



Rudolf with porters

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room to pass by. Gabriel came last; he did not need anyone to hold the rope for him. I was glad to see him, though I expected a scolding for having untied and being left here halfway; but he was unexpectedly amiable, and tying me to the rope of which he had kept the upper end, I went down without any trouble till we came to the men below. Such an array of *bergschründe* and caverns, a perfect medley of enormous hollows, great snow masses, and precipices, I never elsewhere witnessed: a wonderful sight which would delight the heart of any mountaineer. From here we went on together. It would seem that in this section at some time there must be tremendous snow falls, great masses splitting off from the side slopes above; but at this season there was no sign of snow avalanches, except as overhanging ice walls and immense irregular masses below, gave evidence that at some seasons great operations were here conducted. The wall was not of hard ice but of solid snow or *nêvé*, the space between the two peaks being filled in with snow, obviously hundreds of feet deep. Here in the middle of the saddle, a rock wall beneath has evidently caused a tremendous mass of snow to break off nearly all the way across, leaving a snow wall the solid part of which was about the length of our united ropes, 180 feet, with 100 feet more of irregular cavernous and crevassed descent. The solid part in places lacked little of the perpendicular, equalling the angle of the cliff on the *Fünf-fingerspitze* above the *Daumen-scharte*.

After descending, also one at a time, the shorter ice wall farther down, we could go more rapidly, except for delay on a steep traverse, where first one of the *peónes*, then another, slid twenty or thirty feet. At length all dangers were over; we passed one old camp after another, eager to reach the rocks where we could have fire and water, of which we had been destitute for more than forty-eight hours.

At the edge of the glacier, before sunset, the men paused where a few streams trickled, and drank and drank, while I sat patiently waiting till they had their fill and one

of them was ready to bring a bucket of water from a larger stream at a distance. Within the next five minutes, I drank four tin cupfuls, a greater quantity at once than ever before in my life. Presently we had soup and tea. It was a quiet moonlight evening and with the indians preferring to sleep outside the tent, we should have been very comfortable and happy had it not been for Rudolf's frozen hands and foot. He dared not take off one boot lest he should be unable to put it on again in the morning.

Soon after sunrise on Saturday we started down, as I was anxious to get Rudolf to Yungay and a physician. This time, descending by the proper route, we arrived about ten o'clock at the mine, where we found Señor Jaramillo with the horses, this being the appointed day. After breakfast we hastened on to Yungay, I at least rejoicing that I should not have to come that way again; though the sad condition of Rudolf, then and always, greatly marred the satisfaction of my triumph. His misfortune seemed indeed to outweigh any benefit derived from the ascent, my only consolation being that it was his own fault and not a necessary consequence of the climb, as the soundness of myself and Gabriel proved. I learned afterwards that Rudolf, in spite of all I had said about the cold, had even left an extra flannel shirt in the tent at the saddle while he went to the top. This, by keeping his body warmer, might have slightly lessened his calamity. Also there were four pairs of mittens in the tent, some of which might have been carried, if one had supposed that any would be lost.

As I rode along the valley and looked up at that great magnificent mountain conquered at last, after so many years of struggle, days and weeks of hardship, and now at such cost, I felt almost like shaking my fist at it and saying, "I have beaten you at last and I shall never have to go up there again," but I didn't.

Immediately upon our arrival, without waiting for congratulations, I sent for the only physician in the place who, soon after a second summons, arrived. He expressed him-



Señor Don Francisco Handabaka, with servant at right



Four porters after ascent

1701

self as doubtful of the result but said he would do his best. Cotton was procured and a proper solution for bathing the injured members, in the method of which I was duly instructed. For the next twenty-four hours, this operation which consumed about ten minutes was repeated every quarter of an hour, so that there was very little intermission in one's labours. I had expected to share the night with Gabriel, but finding that a nurse could be procured, a cholo woman, I was glad to leave the night work to her. The second day, once in half an hour was sufficient. Other treatment followed. After a day or two the doctor said it would be a fortnight before he could tell whether amputation would be required, perhaps longer; if so, it would be two months before Rudolph would be able to travel. As there was nothing that I could do, since Gabriel would remain with him to assist and to keep him company, I decided to leave them both there, Rudolf without the use of his hands being unable to travel on horseback to the seashore. I was assured that the physician was perfectly able to attend him and to perform any needed operation, he was the only one to be had within thirty miles; so with a promise from the Vinatéas and Señor Handabaka that he should be well looked after, I went on to Lima to improve my time in the country by visits to other sections.

Before my departure the men had been removed to a hospital conducted by a society of the good people of Yungay, of which Señor Handabaka was President. For attendance upon Taugwalder no charge was made; for the board of Zumtaugwald but a modest sum. Having provided in advance for all their expenses and arranged for their transportation to the coast, about a week after my ascent of the mountain I bade farewell to Yungay, and to the hospitable family that had so long entertained me. I had previously planned to go over land with my guides to Cerro de Pasco, pausing on the way at Chiquián, and if it looked at all feasible, attempting the ascent of the great mountain near by, La Viuda, the highest in that part of the

Cordillera, northwest of Cerro, to which place we should then proceed, perhaps if time permitted afterwards trying the high mountain to the northeast. Also I had had in view an ascent of Coropuna. At least one or more of these ascents might have been accomplished, had it not been first, for Rudolf's illness on our first attempt, which occasioned a loss of two or three weeks, and then, for his sad accident which prevented any further mountain climbing.

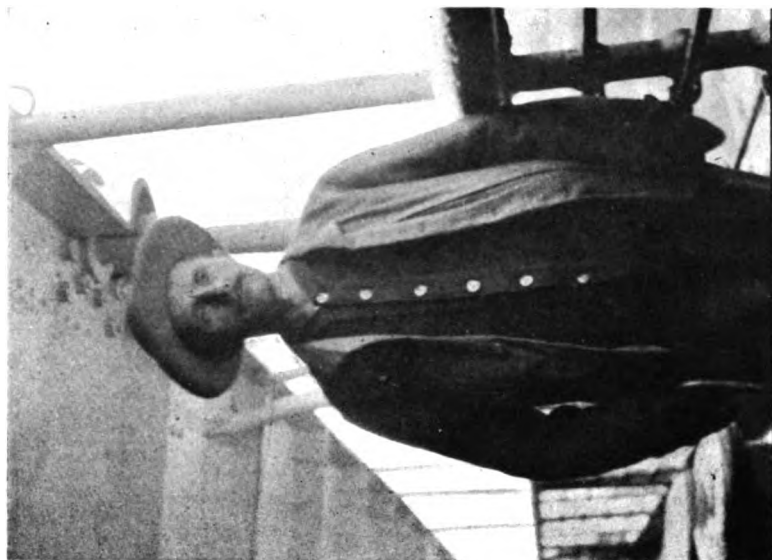
I was greatly grieved to learn afterwards in Lima that it was finally necessary to amputate most of Taugwalder's left hand, a finger of his right, and half of one foot. He was unable to travel until December, when the men rode down to Samanco and sailed to Callao, where they took the steamer for Panama and New York, returning in January to their homes in Zermatt. The well-known surgeon, Dr. William Tod Helmuth, kindly examined Rudolf in New York City, and I was glad to hear him say that undoubtedly he had received suitable attention and that the operations, especially the very difficult one on his foot, had been excellently performed.

Concerning the altitude of Mt. Huascarán, in regard to which there has been a rather one-sided controversy, a few words must be said. That I ever asserted the height of the mountain to be 24,000 feet is a deliberate misstatement, to which my articles published in *Harper's Magazine* for January, 1909, and in the *Bulletin* of the American Geographical Society for June of the same year bear witness. Following is a precise presentation of the facts.

The day after we reached the summit of the north peak, I requested the guides separately to estimate its height above the saddle, taking into consideration the angle of the slope, our rate of progress, and the number of hours occupied in the ascent. After a few moments' thought they said that they had formed an opinion. Rudolf's estimate was from 4,000 to 5,000 feet, Gabriel's from 3,800 to 4,200 feet. Comparing in my own mind this ascent with that of Orizaba where, in about the same length of time, an altitude of 4,000



Gabriel Zumtaugwald, hero of Huascarán



Rudolf Taugwalder, maimed guide

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feet had been gained, remembering that the incline here was greater and the halts fewer, aside from the momentary pauses for step cutting, 4,000 feet then seemed a fairly reasonable estimate. Furthermore, in the photographs, as well as when viewed from the hills in front, the height of the peaks above the saddle appears hardly inferior to the distance from the snow line to the saddle, which is approximately 5,000 feet. I was aware that the north peak sets farther forward than the top of the saddle, for which I made some allowance, apparently not enough. I *thought* the mountain would reach the height of 23,000 feet and stated that if it should prove to be 24,000, my ascent would be the world's record for men as well as for women; the greatest height previously attained being the ascent of Kabru to a trifle less altitude by W. W. Graham, twenty-five years earlier, an achievement which I never saw any good reason to doubt. I naturally expected no one to take an estimate as authority and said so.

From my observations at the saddle with hypsometer and mercurial barometer compared with hypsometric observations made at the same time in Yungay by Mr. Handabaka, the height of the saddle or *col* between the peaks was calculated by Prof. C. F. Marvin of the United States Weather Bureau, and by Prof. H. C. Parker of Columbia University to be 19,600 feet, a trifle less than I had hoped, but not enough to preclude the possibility of a total altitude for Huascarán of from 23,000 to 24,000 feet when that should be accurately determined from later observations on some other ascent or from triangulation. Whatever the result might be, the *fact* of my attaining the summit, happily attested by photographic evidence, would stand.

The triangulation was not long delayed. Solely in the interest of science, it is said, an expedition of three French engineers was sent from Paris to Peru to secure the altitude of this one mountain. Apparently the work was done with an extreme care which presupposes accurate measurement; yet \$13,000 seems a large sum to spend for the triangula-

tion of a single mountain which it cost but \$3,000 to climb. With \$1,000 more for my expedition, I should have been able with an assistant to triangulate the peak myself. With \$12,000 additional I could have triangulated and climbed many mountains and accomplished other valuable exploration. The figures given as the result of this triangulation are 21,812 feet for the north peak and 22,187 for the south. Though it would thus appear that Huascarán is not so lofty as I had hoped, my ten long years of effort had culminated in the conquest of a mountain at least 1,500 feet higher than Mt. McKinley, and 2,500 feet higher than any man residing in the United States had climbed. With this I must be content until opportunity is offered to investigate some other possibilities in regard to the Apex of America.

CHAPTER XXVII

THE PAN AMERICAN RAILWAY. HONOURS RECEIVED FROM PERU

WITH mingled feelings of sadness and satisfaction, I bade a last farewell to my kind hosts, the Vinatéas, and to the beautiful Huailas Valley; happy that after long years of labour I had attained my goal, and could return in triumph instead of in ignominy or with a story of partial achievement; regretful, too, that I should see no more my good friends in this region nor behold again the incomparable Queen of the White Cordillera, my peerless Huascarán. There may be other mountains more lofty in the Andes, but I dare say none more lovely.

In good time, with a night at each station, my final journey was made over the Black Range to Cajabamba, down through the deep gorge to the home of the Gadéas in Moro, on to San Jacinto, and to the coast at Samanco, where I enjoyed a twenty-four hours' visit with the Brysons, who, after a long sojourn by the sea were about to return to their delightful home among the mountains.

To Callao then I sailed with intent to see what more of Peru and Bolivia the next six weeks might permit, especially on the line of the Pan American Railway. Since the opening of the road to Cuzco was at the moment being inaugurated, I resolved to visit the ancient Inca capital thus made comparatively accessible. It was still a long way around, three or four days by sea to Mollendo, one by rail to Arequipa, another to Juliaca, near the border of Lake Titicaca, and a very long third day on the highlands back again toward the northwest to the city of 20,000 inhabitants, where once dwelt the rulers of a mighty kingdom. By the wholly overland route the journey would be far

more protracted. Although a trifle shortened by the opening about the same time of a line from Oroya to Huancayo it would still be a matter of weeks, as from Huancayo to Cuzco, a distance of 500 miles, one would be compelled to travel on horseback. This is the longest break remaining in the railway connection between Lima and Buenos Aires, the southern section of the Pan American Railway: a difficult part too, on account of two deep valleys, the necessary crossing of which will entail a heavy cost. However, the line is already in construction from Huancayo on towards Ayacucho, and it is believed that within a few years this gap will be filled as well as the smaller one remaining in Bolivia, when a delightfully interesting railway journey from Lima to Buenos Aires will supplement the sea voyage through the Canal to Callao.

Worthily to describe the wonderful ruins and the modern city of Cuzco is a task beyond my time and space. I can but advise the tourist on no account to omit from his itinerary this historic city, founded by Manco Capac in the year 1043, and captured by Pizarro in 1534. True, it is called the dirtiest of all cities, avoiding pestilential diseases only by the purity of its dry atmosphere more than 11,000 feet above the sea. The Hotel Universo which in 1908 partook of the failings of the city may be endured for a day or two, while, with the spirit of progress engendered by the advent of the railroad and the consequent travellers, superior accommodations will doubtless be offered before any of my readers will need them.

The zeal for improvement and growth now permeating South America was already manifest in Arequipa, where in November, 1908, I found that the proprietor of the old Hotel Central had erected a fine large new structure which under the same name was furnishing excellent quarters to a larger number of guests.

Returning from Cuzco to Juliaca I continued by Puno and Lake Titicaca to Bolivia and La Paz. The changes since 1904 are noteworthy. At a station near the edge of



Mt. Huascarán, from 10,000 feet

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the *alto* a brief halt is made for the removal of the locomotive and the attaching of an electrical engine to each of the cars. From the brink of the cañon we descend to the outskirts of the city on a road with an average grade of six per cent. which includes several curves on a radius of one hundred metres. The construction of this electric railway six miles long, by many believed to be impossible, was due to the initiative and energy of Mr. T. Clive Sheppard, then Subdirector of Public Works. It was opened for traffic in 1905. The electricity employed is produced from mond gas, a composition of ordinary gas, steam, and air, which in the operation of the road has exhibited a highly economical efficiency; since coal, costing nearly \$50 a ton, must here be used with frugality.

The railway from Guaqui on Lake Titicaca thus completed to La Paz has been of the greatest benefit to Bolivia by facilitating communication with the coast, which, however, still remains expensive, so that the old method of transport by llamas and other pack animals from La Paz to the seaport Arica, much nearer than Mollendo, is still employed for many kinds of freight.

The portion of road between Guaqui and Viacha is another link in the great Pan American Railway which will one day enable the traveller comfortably to make the entire journey by land from New York to Buenos Aires, a distance of 10,116 miles, amid scenes of wonderful variety, beauty, and grandeur. Still more recently another link has been added by the construction by an American company of a road from Viacha to Oruro, which, in place of the two days' diligence ride from La Paz, now becomes but a few hours by rail. The three days' journey on the narrow gauge railway from Oruro to the sea at Antofagasta by a weekly sleeping-car service is reduced to 28 hours. From Oruro over the Bolivian plateau as far as Uyuni, one is still on the line of the intercontinental road. At this point construction will soon be inaugurated towards Tupiza, thence to Quiaca on the Argentine frontier, the entire distance,

177 miles, constituting the only remaining gap in this quarter; for the part of Argentina in this great work is already completed, more than a thousand miles of railroad conducting the traveller from the northwest border to the great metropolis of Buenos Aires. At Mendoza connection is made by means of the Trans-Andine tunnel with Chile, which country also is busily engaged in a rapid extension of her railroad system.

The longitudinal line in the countries of Peru and Bolivia, however important and necessary, is but a part of the great system to compass their development. From this as a back bone branches will extend east through the great mountain range to the warm valleys of the Amazon basin, passing through rich mining, grazing, and agricultural sections to the lower rubber country, while others to the west will reach the ports on the Pacific. Already in Bolivia a branch is building east from Rio Mulato near Uyuni to the famous rich silver city of Potosí, whence later it will be extended to the so-called capital of Bolivia, Sucre, the functions of which have for many years been usurped by La Paz on account of its greater accessibility. On the completion, within the year, of this branch as far as Potosí, work will be pushed on the main line from Uyuni to Tupiza, then to Quiaca, unless Argentina should decide to renew former arrangements and herself build up to Tupiza. A second branch eastward is also being constructed from Oruro to Cochabamba, a distance of 160 miles, a most desirable connection of rich agricultural valleys with the comparatively barren plateau. Further, contract has been made with the Antofagasta Company to build a steam railroad from Viacha down to La Paz in order to be independent of the Peruvian Corporation now operating the line from Guaqui. The former road will then be continued from La Paz down the valley to Yungas, some time onward to Puerto Pando, there connecting with the navigation of the Amazon system. Other plans there are for a more distant future.

On the west, Bolivia's two outlets to the Pacific by Anto-

fagasta and Mollendo will soon be supplemented by a third to Arica. With the employment of 5,000 labourers, work has been vigorously prosecuted from each end of the road, and the line is expected to open in 1912 with a service occupying but thirteen hours for the journey from Arica to La Paz. This road will pass the Tacora sulphur mines, said to be the largest in the world, and traverse the rich mineral district of Corocoro, thus rendering accessible many wonderful deposits. At the moment tin holds the first rank among the exports of Bolivia, which country has, among the Americas, almost a monopoly in its production. Nearly all other minerals are found in profusion in the region of its plateau and mountains, yet the second place among its exports is held by an agricultural product of the low country, rubber. Nearly every variety of growing plants flourishes within its boundaries, while its great pampas provide ample grazing for millions of cattle. It is said that the country, now containing less than 3,000,000 people, is capable of supporting 100,000,000, the lack of proper facilities for travel and traffic alone having retarded immigration and general progress.

In 1908, La Paz, in American parlance, seemed to be enjoying a boom which in view of the plans and resources of the country no doubt is still in progress and destined to continue. The Hotel Guibert had opened a large new annex where I was obliged to find quarters, and another hotel had been erected in the lower part of the town. Among the foreign residents now in the city were many from the United States, some connected with the new railway, others with the House of W. R. Grace which had recently opened a Branch here as well as at Arequipa. Many Americans being accompanied by their wives, the foreigners enjoyed a pleasant little society of their own.

The opportunity afforded by the new railway was improved by a trip to Oruro where the Hotel Union, after my stay in Cuzco, seemed pleasantly neat, even palatial. It was provided with Brussels carpet, electric lights, and

all things to correspond. An interesting visit was paid to one of the mines which account for the city's existence, the San José, producing silver and tin. Many men and women are employed, the latter generally in sorting ore, which they were said to do better than machinery.

In the evening I was escorted by his Secretary to the palace of the Prefect where in a large and beautiful salon an informal dance was in progress. The Señora, a gracious hostess, received me with especial attention, introducing many of her guests, the ladies handsomely attired in evening gowns of the latest mode.

On my return to La Paz, through the courtesy of our Minister, Mr. James F. Stutesman, I had the pleasure of being presented to President Montes, and of attending a grand ball given in the palace in honour of the Princess Glorieta Argendoña, a magnificent affair, enjoyed by the élite of the city including the diplomatic corps and some favoured foreigners. Although on a smaller scale, in other respects, style, decorations, refreshments, etc., it fully equalled the grand ball given by the City of Lima in honour of Secretary Root. The dancing which began at eleven continued I was told until seven o'clock in the morning, my own departure being rather reluctantly made about half past four. Many good dancers were present and at 12,000 feet above the sea I found the pastime as enjoyable as at a lower altitude.

A contemplated trip to the Yungas Valley, being discouraged by the Secretary of Agriculture on the ground of its difficulty, was finally abandoned for a return to my prior plan of visiting the plantation, Perené, a property of the Peruvian Corporation in the Chanchamayo district east of Oroya. Unfortunately on my return to Lima I learned that a malarial epidemic of great virulence was there raging. After escaping the perils of Huascarán, it appeared undesirable to risk serious danger from the unusual conditions prevailing in this quarter; no other tropical region was within the range of possibility; hence a visit



San José Mine, Oruro



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to the *montaña* is a pleasure to which I must still look forward.

As from either end we approach the central portion of the Pan American Railway the breaks become larger and larger. North of the 500 mile gap between Cuzco and Huancayo the line is in operation for 150 miles to Oroya, Cerro de Pasco, and Goyllarisquisga. Beyond this, a thousand mile stretch to Alausi in Ecuador still awaits the capitalist, the bit which should by now have been completed along the Huailas Valley to Recuay having halted at kilometre 105, no farther than Meiggs laid the road-bed thirty odd years ago. The continuance of the line up this rich, populous, and beautiful longitudinal valley, surely cannot long be delayed; the entire Peruvian section may be constructed within a decade.

Lines equally necessary, tapping or crossing the longitudinal, are already being arranged for. One is proposed to extend east from Oroya to a navigable tributary of the Amazon. Farther south the Peruvian Corporation is surveying a line from Urcos on the railroad near Cuzco to the waters of the Madre de Dios, a line which like the others will pass through a rich mineral and agricultural section down to the rubber country. Another, for which a concession has been granted to an American, Alfred W. McCune, will extend from Goyllarisquisga, a distance of 275 miles to Puca Alpa, a port on the Ucayali, which four months in the year permits the approach of ocean steamers, at all times of ordinary river craft, and gives connection with a network of 4,000 miles of navigable rivers. By means of this railway an extensive region will be brought fifteen or twenty days nearer to New York and Europe than by the more obvious route down the Amazon past Pará. This most favourable concession includes immense grants of land of incalculable wealth in mineral deposits, timber, virgin rubber, and various other agricultural products, while the passing of the road by Yanahuanca, Huánuco, and several other towns ensures traffic from the outset. The further privilege

of constructing a line down to the Pacific port of Huacho makes possible a more direct transcontinental connection through the Amazon than by the Oroya Railway. The consummation of this great enterprise should bring enormous benefits to its promoters as well as extraordinary progress in the development of Peru. Farther north the Germans have made a survey from Paita to Melendez on the Marañón where a proposed road 400 miles long would cross the Andes in one of its lowest sections and tap the future Pan American Line.

In Ecuador 160 miles of the Guayaquil to Quito Railway will serve for the Pan American, and 100 miles more are contracted for. The rest and practically the whole thousand miles in Colombia is a blank so far as the Intercontinental Railway is concerned. In Central America, of the thousand miles more which are lacking, 274 from Panama to David are arranged for, as are other sections in the other countries. There is ground therefore for the hope that on the opening of the Canal in 1915, an all-rail communication will have been established to Panama. This done, the completion of the South American section, perhaps five years later, will not fail to entice thousands of tourists to make the wonderfully enlightening and delightful journey overland to Buenos Aires.

The traveller who prefers to be in advance of the throng, the investor who would wisely improve the opportunity will not await the consummation of these enterprises. The pleasure seeker may now enjoy a unique and delightful journey: the business man who takes advantage of the present moment will be prepared for the rapid development destined soon to astonish the world. The twentieth century may witness in the southern half of our continent a more extraordinary material advancement than the nineteenth has seen in the northern. Peru affords a temperate climate even at sea level in the torrid zone. Matchless and varied scenery, admirable remains of antiquity, cities the more interesting since unlike our own, people with charming courtesy and

culture, will there be found. Untraversed regions await the explorer; minerals of every variety (including vanadium, graphite, tungsten in wolframite, etc.), in rare profusion allure those eager for speedy wealth; sugar and cotton crops of unexampled opulence with all the richest products of tropical and temperate zones invite the settler to unoccupied land. Immigration and capital will not be wanting when the wonderful resources of this great country are recognised and rendered accessible.

Two pleasurable occasions preceded my departure from Lima, the honour of an interview with His Excellency, the President of Peru, whom I had previously met as Señor Leguia, and a distinction conferred by the Lima Geographical Society. President Leguia, through whose kindness I had been favoured with the hospitality of San Jacinto, was cordially interested in my ascent of the great Huascarán. At his instance I was subsequently presented by the Government of Peru, with a very beautiful and artistic gold medal 22 carats fine, in recognition of my services to their country through my exploration and writings, a tribute most gratefully received and highly valued. Following is a translation of the official decree:

GOLD MEDAL FOR THE EXPLORER, MISS ANNIE S. PECK.

Lima, 27th of Nov., 1908.

The President of the Republic,

Considering:

1st—That it is fitting to stimulate exploration of all kinds in the national territory for the important biographical and industrial data which in consequence are obtained:

2nd—That the North American explorer, Miss Annie S. Peck, has made herself worthy of a testimonial through merit gained by her ascents to the lofty summits of the Peruvian Andes, especially of the Nevado Huascarán, situated in the Cordillera of the department of Ancash; to which is assigned an altitude of 24,000 feet:

Decrees:

1st — To authorize for the said explorer, Miss Annie S. Peck, a medal of gold in recognition of her meritorious ascent to the summit of Huascarán.

2nd — The Office of Fomento will arrange what is necessary for the carrying out of this decree, charging the national mint with the making of a medal according to the annexed design of 80 grams weight of substance like that of national gold coins which shall bear the following inscriptions: on the obverse "Nevado Huascarán 24,000 pies, Republica del Peru," and on the reverse "El gobierno del Peru à Annie S. Peck. Nadie llegó antes que ella à la cumbre del Huascarán."

The expense which is necessary for the fulfilling of the present decree will be borne by the portion of extraordinary expenses of the department of the general budget in force.

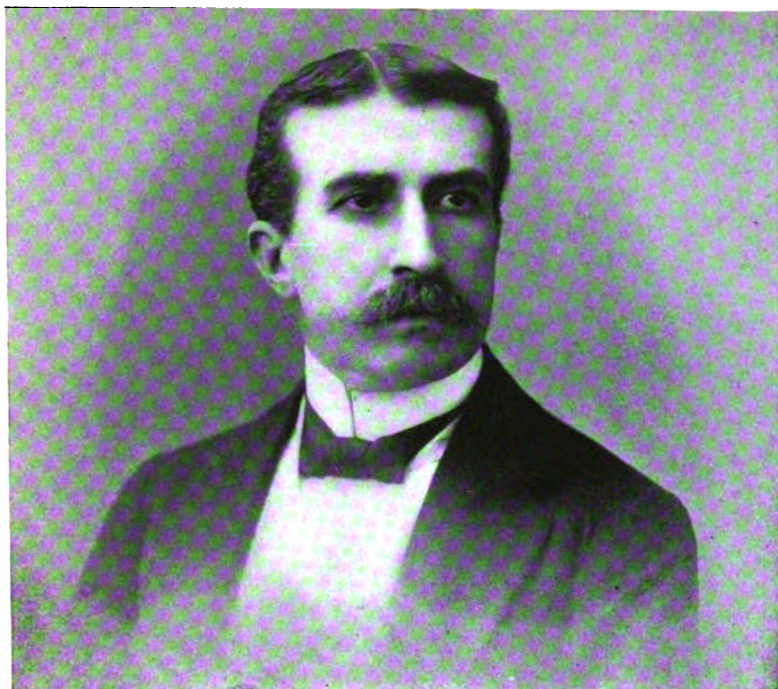
Given in the house of government in Lima on the 27th day of the month of November, 1908.

A. B. LEGUIA,
President.

FRANCISCO ALAYZA,
PAZ SOLDAN,

A gift highly appreciated was that of the President's photograph in which he is justly portrayed as a man of unusual ability and great strength of character, the latter strikingly evinced not many months later when he braved death rather than dishonour.

It was in May, 1909, that one of those distressing episodes occurred, which have given to the Latin-American Republics a reputation for unstable governments, though this, happily, did not result in revolution. A hundred or more armed adherents of a factionist, Piérola, making at the noon tide hour a simultaneous attack upon the three entrances of the palace, overpowered the guard, killing many, and proceeded to the Presidential suite. Shooting down his Secretary, they forcibly carried the President to the street, then, surrounded by horsemen, from one place to another, finally to the Plaza de l'Inquisición. With a re-



Señor Don A. B. Leguia, President of Peru



Gold medal presented Miss Peck by Government of Peru

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volver at his head the demand was made that the President should sign his resignation, which, with great fortitude, he resolutely refused to do. Meanwhile, ministers in the palace who had not been molested were arousing their friends by telephone. Soldiers summoned to the President's aid soon surrounded the Plaza, slew a considerable number of the kidnappers, and arrested others, happily finding the President unharmed after being for two hours or more in the power of his enemies. President Leguia, who had opened his administration with acts for the conciliation of all factions to receive this reward for his generosity, was fortunately preserved to continue his pacific policy towards the neighbouring nations of Bolivia and Ecuador. His name should be known and honoured and his services to the cause of Peace recognised, not only in South America, but throughout the whole civilised world.

An agreeable occasion was on the 23rd of November, 1908, when I had the distinction of being the first woman to address in their own language The Lima Geographical Society, my subject, The Conquest of Huascarán, illustrated by stereopticon views. I did not venture upon extemporaneous speaking, but read my address, which, hastily written in English, had been translated for me into excellent Spanish by Señor Valle-Riestra, one of the members of the Society. Such interest in the occasion was manifest that more people were turned from the doors than were able to enter the hall, while a hundred remained standing throughout the exercises. That I was perfectly understood had been evident. It was a gratification to learn afterwards from the Secretary that I had mispronounced only three words. With three days instead of one to review the manuscript, these few errors might have been avoided. A pleasing souvenir of the occasion, presented to me from the Society the day following and the day before my departure, was a handsome solid silver stirrup in the form of a slipper, a relic of colonial days, when it was doubtless used by some maid or matron of high degree in her horseback rides about the city or

in journeying over mountain and plain. By a curious coincidence I had been obliged to deliver my address wearing one Japanese slipper, from having in my room the evening before stepped upon a sharp nail which had penetrated an artery of my foot. The perils of city life especially in New York I have long deemed graver than those of mountain climbing. This slipper of silver and the medal of gold, both made from native metals of this richly mineralised and otherwise resourceful country, are preserved as my most precious treasures.

While my several expeditions, on account of meagre financial support, have contributed far less to scientific knowledge than I had originally hoped, if they shall have served in some degree to foster the awakening interest, to disseminate a little information in regard to a portion of what is fitly called the Land of To-morrow and the Continent of Opportunity, they will not have been made in vain.

THE END

UNIV. OF MICHIGAN,

OCT 25 1912

UNIVERSITY OF MICHIGAN



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